THE SCHOOL REVIEW

A JOURNAL OF SECONDARY EDUCATION

VOLUME XIV
NUMBER 2

FEBRUARY, 1906

WHOLE
NUMBER 131

THE COLLEGE COURSE IN THE PRINCIPLES OF EDUCATION[1]

DR. JOHN A. MACVANNEL
Adjunct Professor of the Philosophy of Education in Teachers College, Columbia University, New York City

The rough notes offered in this paper will, it is hoped, furnish a working basis for a discussion of the topic: What should constitute a college course in the principles of education, its relation to cognate subjects, its limits, and the more important sources of material? A course in the philosophy of education differs from one in the principles of education not so much in its materials as in its standpoint, and in its more persistent endeavor to indicate the organic unity as well as the possibility and implications of the educational process. It must be conceded at the outset that it is impossible to make an outline of a course in educational theory, whether elementary or advanced, without assuming a point of view in regard to the general problem and its method of treatment as a whole. On the one hand there are those who maintain that the study of education is valuable only in so far as it is amenable to scientific treatment—understanding by such treatment the quantitative study of education. On the other hand there are those who conceive its more fruitful study to consist in treating educational theory as an integral part of a wider philosophy of society, while not ignoring the necessities of scientific treatment. To the present writer this latter method commends itself as,

[1]These papers are printed for discussion by the Society of College Teachers of Education at a meeting to be held in Louisville, Ky., February 28 and March 1, 1906.

on the whole, the more satisfactory, and indeed, if education is to be seen in its right relations in human experience, as the only one possible in the long run. The hard and fast distinctions, however, so frequently made between science and philosophy cannot be permanent. Both aim at *the organization of experience for the purpose of control*—the single science within a narrow sphere, philosophy within the widest possible area. It seems reasonable to presuppose in college seniors the capacity for a study of education in a philosophical spirit and yet in accordance with scientific method.

In the second part of the present paper especially—the part which attempts to trace in outline the more important phases of the educational problem and its possibilities in affording an elementary course in educational principles—it would be extremely difficult to find anything not already in some measure made common property through the writings of our educational leaders. This part undertakes to furnish a map of the country now being explored by these leaders—a rough outline of the general educational problem. It is at best a plan of action whose inherent logic is not as yet entirely satisfactory. Many possibilities are unprovided for, and there is much omitted which should appear in a complete outline of the subject. In many cases—for example, the question of the relation of theory to practice, to what extent education is a science, and so on—it has been omitted arbitrarily. Having come to some agreement concerning the general nature and content of educational theory, it may be possible to recognize somewhat more clearly the form a more precise statement of the problem must take, the lines along which a more adequate solution of the problem lies, the probable results which such an inquiry may attain. As a working hypothesis the present paper may suggest lines of criticism or of investigation to those who will make real contributions to the subject.

I

"What is education, and how are we to educate, either with a view to perfect training or to the best life?" The Greeks were the first to raise educational practice to clear consciousness, abstracting and generalizing its "idea" or principle, and thereby freeing it from the thraldom of mere habit and routine. In this way they attained

a conception of the educational process as including the fundamental elements of human nature, and whose purpose is the conscious realization of the higher life of man. Thus it was, too, that the Greeks did for education what they did for civilization and culture in general. It is, however, a somewhat curious phenomenon in the history of education that the serious study of education, in theory and practice, should have been so long postponed by the colleges and universities. While the history of nations was regarded as a legitimate subject for university study, the history of education was unknown; while psychology and ethics were followed with deepest interest, their possibilities as instruments of control in the process of education were not discerned; while the study of human institutions occupied a prominent place in the curriculum of the university, the significance of that institution which underlies all others, which in large measure makes possible the continuity of the spiritual life of man, and which affords the surest method of control in social evolution, remained unrecognized, or, if recognized, only to be treated with indifference and neglect. Only within recent years, with the growing consciousness of the importance of education as a reconstructive force within human experience, with the clearer perception of its fundamental significance in national as well as individual well-being, with the growth of the scientific spirit which will think of nothing as foreign to its inquiry, with the emergence of the individual as such as worthy of education and education as the universal human interest, has the university, "the bearer across the centuries of the educational tradition," issued to itself the command, "Know thyself," to come to a conscious realization of its own aims and processes, and enrolled among the humanities the patient, loving, thoughtful study of education as a human institution. While for centuries, moreover, it had recognized the great human professions, law, medicine, and theology, and its duty to those who were to participate in these forms of human activity, only in the modern period has the university come to realize as one of its peculiar functions the elevation of the vocation of the teacher and the interpretation of the precise social significance of his work by offering the scholarship and resources, the reverent and accurate treatment, which its importance in human experience renders not only reason-

able but imperative, to the study of education as one of the great movements of the human spirit.

The American college and university, in now offering courses in education and in making these courses liberal as well as practical (in the sense of preparatory for a profession), worthy of the attention of all students alike, must, in time, accomplish certain significant ends. Concerning two or three of these a brief word may be said.

1. Through the study of education the student should be enabled to recognize the close connection of education as a human institution with social order and progress. It may be said that through the university study of education democratic society attempts to discover the inner nature of its own processes, to abstract the idea or principle from the concrete material, and thereby consciously to control the method of its own development. The college or university student of education, therefore, should come to recognize that the path of future advance in the personal and social life lies not so much in the discovery of new methods, as in the reconstruction and perfection, in the light of an enriched experience, of ideals and methods which are implied in, or have already become the common property of, humanity. In educational theory and practice, as in the other great lines of human interest and activity, progress must have for its foundations the achievements of the past. When the liberal or humane study of education becomes rightly related to the other studies of the college or university, the student will inevitably come to a clearer insight into his presuppositions in the past and present—*the ideals and methods which have entered into his life and constitute his true self*. Such knowledge must have an important influence at once in elevating his ideals, in forming his judgment, in regulating his activity.

2. Closely connected with the foregoing is the notion that college and university courses in education will qualify individuals, who are equipped at once by nature and by general culture, for intelligent educational leadership. It is not to be forgotten that the ideal which America is attempting to embody is ultimately that of individual self-government, the ideal of a society in which the citizens are competent to make the laws which they themselves are to

obey—in a word, a society the essence of which is education. If this be true, the time must come when the study of education will be looked upon as an integral part of the equipment for the highest type of citizenship. But it should also be remembered that nowhere is intelligent and efficient leadership more necessary than in democratic society as at present constituted. To make the college or university courses in education either liberal or practical, in the somewhat restricted sense of these terms, will not suffice. The university in a democracy will fail of its highest duty if it does not provide for select students the opportunity of securing a disciplined social self-consciousness of the highest order. For this the courses in philosophy, in ethics, in sociology, in psychology, in economics, will not suffice. The university courses in education, finding their materials in these and kindred sciences, and integrating them into a reasoned theory of individual and social well-being, must more and more equip a select body of students as social leaders, capable of meeting the social and educational problems which press for solution in the democracy of the present. A university should give to all its students a sense of their social responsibilities; it should qualify some to use intelligently education as a fundamental method of social control and social progress. An important function of a university is the generation of ideas; an important function also is the indication of possible applications of ideas to life.

3. It is unnecessary more than to name a third function of the college and university study of educational theory. It is concerned with the theory of a special vocation—a vocation whose outer aspect will change with the changing conditions of life, but whose inner form remains ever the same. Many factors have contributed to the slow recognition of the need of a theory of education, which need not be enumerated in this connection. One important factor has undoubtedly been the *slow and imperfect recognition of the place of knowledge in experience.* The charge is ever and anon brought against the *educated* man that he thinks abstractly, while the *practical* man thinks concretely. It would appear, however, that it is the so-called practical man who is apt to be the victim of abstract thinking, of the instantaneous view. He is constantly in danger of divorcing his problem from the conditions or processes which make

it a problem; and his solution or interpretation, accordingly, is apt to be the first one that strikes him, and therefore one-sided and temporary at best. On the other hand, it is the mark of the educated mind, as Plato says, to see things, not in isolation, but as wholes. His thinking is not abstract, but rather concrete. It is characteristic of such thinking that it deals with a subject or problem, not in isolation from, but in vital connection with, the conditions or processes which make it a problem. It is not satisfied with the hurried or one-sided judgment of abstract thinking, but strives to realize that higher and truer conception in which the different aspects of the problem, and the knowledge of the conditions which make it what it is, have grown together and coalesced. The insight afforded by such a conception must be in the highest sense practical.

As is true of many other lines of study, the theory of education treats of what Bacon would designate "parts of learning not sufficiently labored and prosecuted," and also of "sciences already extant and invented." Until very recently, moreover, attempts at a theory of education, save in a few instances, have been rather fragmentary, and, indeed, unworthy the dignity of the subject-matter. This fact may be attributed to one of several causes: (1) the familiarity and at the same time the complexity of the subject-matter, or (2) an unscientific method. Even at the present time there are those who regard the subject-matter as so scattered or intangible that attempts at system are little more than collections of threadbare axioms, or endeavors to create something out of nothing. As is suggested in another connection, it is simply a question of fact. Do the so-called educational phenomena come within experience in such a way that they may be definitely located and defined? In other words, are there educational facts to be isolated and observed, and can they be studied methodically? If so, a science and philosophy of education is possible. From one point of view education is the most recent of the sciences; from another, it is one of the earliest. The methodical study of education and its place in human life, begun by Plato and Aristotle, has forced subsequent inquiry to converge toward a reasonably continuous development. Few of the fundamental conceptions of Plato and Aristotle have been displaced; they have been

extended in their application and transformed in the light of an enriched experience.

So far as the present section is concerned it remains only to direct attention to certain of the more prominent features of the outline of a course in the principles of education offered as a basis of discussion and criticism in the second part of this paper. In the outline itself the first place is given to the statement of problems rather than to their solution. There is a sense in which it is impossible to formulate our problems, unless we are prepared with at least partial solutions. It may be admitted, also, that the accurate definition of a problem, in education as in philosophy, is a most important factor in its solution. Kant regarded complete definitions as the last result of philosophy. At any rate, it seems to be true, both in philosophy and in education, that results can mean little or nothing to those who have not first endeavored to understand the nature and appreciate the value of the processes by which they were reached. In education especially, partly owing to the fact that it represents a need both universal and fundamental, and partly because its phenomena are, from one point of view, of the simplest and most familiar kind, there is grave danger at the present time of over-rating the importance of finding solutions to its problems, and under-rating the importance of seeking them. In working out a theory of education, the attempt must be made to co-ordinate *all the elements of the problem in their organic unity*. The presence or absence of such unity is one of the supreme tests of such a theory. So long as this is not done, one's view of educational theory must necessarily remain limited and impoverished. In the somewhat fluctuating and yet progressive condition of the theory of the present time, any attempt to bring the manifold elements of the problem into some kind of unity cannot be altogether valueless. Every such attempt, however, will have its defects, and but little more than a transient significance.

1. As was suggested in a previous section, the study of educational theory has, until recent years, suffered from the lack of any clearly defined principle of method. Following the treatment offered in several of the more recent works in education, the present outline attempts to indicate in a schematic way how the educational process may be given a distinct and vital relationship to the facts of organic

and social evolution. In so doing, it is assumed (*a*) that the educational process and the general life-process are both subservient to the general law of evolution as the largest generalization yet made in scientific views of the world, and (*b*) that, as a fact of experience, the educational process is a part of the wider life-process. The inquiry thus becomes essentially this: How does education come into being? In the attempt to interpret the educational process in the light of the doctrine of evolution, emphasis is laid upon two facts: (*a*) *the principle of individuation* according to which the movement of the evolutionary process takes place. In every process of development there are present the two interrelated and co-operating factors: the individual existence in which the development occurs, and the situation or environment which affords the stimuli or the conditions through which the development takes place. On the one side there is the organism with the capacity of response; on the other there is the environment which provides the stimulus. The life-process, for the evolutionist, is a process of adaptation. (*b*) Emphasis also is laid on the significance of the lengthening period of infancy which makes the process of adaptation possible. Education, accordingly, is fundamentally the process of adapting an individual organism to a natural and human environment, actual or ideal.

As is suggested in the third section of this paper, to say that we accept the concept of evolution as a method of studying the world and human life may mean much or little. Its true significance can be realized only when the general doctrine is submitted to the interpretation put upon it by philosophy; in other words, when its results are brought into relation with the other elements of our experience. It would be going beyond the limits of an elementary course in the principles of education to direct attention to any but the more important implications of such interpretation; their significance, however, should be recognized in the content and organization of such a course. It is of fundamental importance for those who undertake the organization of a course in educational theory to recognize that evolution, strictly interpreted, is only a law or method according to which a particular force or reality manifests itself; it does not attempt to furnish any information concerning the ultimate nature of that reality. Educational theory, however, being normative in its character, implies

an estimation of reality. Into it enter *judgments of worth as well as judgments of fact.* Our *idea of becoming* (individual, social, cosmic, what not) must be finally determined by our conception of that existing reality which underlies the process. According to the usual procedure of the evolutionary method of study, the individual is not necessarily any more than the transitory resultant of physical processes. Science, of course, by the very nature of its procedure, presupposes a true objective reasonableness in the world of phenomena. Consistently, also, it recognizes in the latter the varied manifestation of one principle or energy. Some scientists, indeed, regard these phenomena as brought sufficiently within our ken as to see in them a progression toward a goal that is recognizable by human intelligence. But science, as such, is for the most part concerned with co-existences and sequences of phenomena; with the form rather than the matter, the method of behavior rather than the inner nature of the reality which lies back of the method. (See also section II, § 2, and section III.)

2. The outline, further, implies the conception of the unity of the educational process with the wider social process. It aims to suggest the parallelism between educational theory and the wider psychological, social, and philosophical theory of the period. It assumes that no theory, ethical, philosophical, educational, can be developed in isolation from other lines of intellectual activity, or understood when isolated from the human conditions which produce it. It is a matter of common knowledge, moreover, that there cannot be any adequate appreciation of the educational theories of the present without some understanding of the foundations of such theories in the needs and aspirations, the intellectual and social tendencies, of the past. To reach any definite conclusions in regard to fundamental tendencies in the present, a study is necessary of the previous conditions through which they passed in order to reach the present. For in any study involving personal and social progress there may be recognized certain well-defined conceptions formerly maintained, which, compared with the present, will indicate with a fair degree of security the line of future advances. In this is to be found sufficient reason why a course in the principles of education should be preceded by, or be parallel with, a course in the history of education. Any treatment of educational principles must be based

upon the conception of education as a dynamic, growing process, a a part of the changing social situation; thus its theory is in turn a function of the wider intellectual and spiritual life of the particular period.

3. It would appear that the view of mind furnished by evolutionary idealism, according to which mind is not a mere product or epiphenomenon, nor a mere transcendental, spiritual substance which (so far as actual experience is concerned) is a pure abstraction, is the one of greatest service in educational theory. The facts of the educational process imply a conception of mind as a concrete specific activity constantly directed to the accomplishment of something, and not only the bearer of the experience process, but an efficient agent in its furtherance. In the light of all that is said in the outline concerning the place and significance of social theory, it is scarcely necessary to remark that psychological theory is but one of the sources of material of educational theory.

4. In accordance with the view of mind advanced in the preceding paragraph, it will not be difficult to recognize why in the outline the implications of the fact that the process of individual experience lies within the process of social life. Throughout the course of his personal development the individual is dependent on his social relationships. The self is a bi-polar unity, having within itself the terminal aspects of a unitary personal relation, the so-called ego and alter, the latter being also part of a common thought-and-action-content. Thus the individual is in society to the degree that society is in the individual. The social life or continuum, with its subsidiary processes of differentiation and integration, is a life manifesting itself through a system of organs, and these organs, *in coming to realize the community of the social life, become social members or persons;* and the social life becomes integrated and unified only in so far as its members become partakers of the social purpose and yield themselves up to the realization of that purpose. It thus becomes apparent how social theory, along with psychological theory, becomes the second great source of material for educational theory, since through a study of the social process are discerned the great lines of human interest and activity, the nature of the social purpose, the latent possibilities of human life, in the realization of which education will more and more be consciously employed.

5. Another element emphasized in the outline is the necessity of what may be called a *chart of civilization* to any adequate statement of the subject-matter of the curriculum. Civilization represents the achieved culture of the race, its spiritual possessions. These possessions are the inheritance of the individual, becoming his own, however, in a large and fruitful way only through education. The education of the individual is, therefore, the process of adjustment to or participation in the world of social relationships and in the fund of social experience, the ideals and methods, which those relationships conserve. In this conception of adjustment, of participation, of social interaction, as the essential element in the educational process, is found the unity of aim, of materials, and of method in education.

II

In turning from this general statement of the place of education in college and university study to the problem of the actual "content" of a college course in the principles of education, it must at once be admitted that any outline such as is here presented can but furnish mere words along the way. What is written in the second portion of this paper may (*a*) furnish a rough outline of a course in the theory of education which may be loosened or tightened according to specific need; (*b*) help, with the aid of a little classification, to systematize to a degree our knowledge; and (*c*) furnish a basis for criticism. A college course in the principles of education is by no means identical with a thoroughgoing course in the philosophy of education, and yet the outline here suggested aims to view education in its wholeness, in a philosophical spirit and in accordance with scientific methods. It need not, of course, be added that the outline aims to present *a method for the organization of educational ideas rather than to increase the store of information concerning them.* The notes added, *within parentheses*, here and there may prove suggestive in some directions, and explicate the general line of thought; they are not intended to be exhaustive in any direction whatever. The outline is therefore provisional, at best a working hypothesis, a possible plan of action, to be justified by results, and is subject to both criticism and revision.

PART I. THE FOUNDATIONS OF EDUCATION

I. THE STUDY OF EDUCATION AS A SCIENCE

1. *The relation of theory to practice.*—"Sound practice is sound theory unconscious of itself; sound theory is merely sound practice conscious of itself." "Action, in the fullest sense, would also be theory; it would be *doing with the full consciousness of what we are doing.*" The genetic relation between theory and practice. The function of theory to *reconstruct* and *economize* practice. The cultural value of the insight into the *idea of education in its organic* wholeness.

(The technique of effective practice is ultimately dependent upon principles. Professional training in education should aim to give *control of the principles or the intellectual methods* involved in practice rather than the mere mastery of technique. It is a commonplace to say that reflection is an integral part of all worthy activity. Action in the highest sense includes theory. For an individual to try to understand any form of human activity does not necessarily separate him from that activity, making him a mere theorist; normally it should bring the activity home to him more vitally. It should enable him to perform the activity with clear consciousness of what he is doing. The study of facts does not imply separation from them. It means getting closer to them. In like manner, the study of education means its aims, methods, processes, *consciously realized and brought home to intelligence.*)

2. *The nature and purpose of science.*—The sentiment of rationality. Science (*a*) as *knowledge*, i. e., a body of systematized facts gained through certain methods; (*b*) *as instrument of control*, i. e., as a body of methods controlling our judgments concerning a particular group of facts; (*c*) *as mediatory from one stage of experience to another.*

3. *The possibility of a science of education.*—The so-called distinction between the *descriptive* and the *normative* sciences. The field of education. The relation between the history of education and the theory of education. Consideration of the question: How far may a science *in process of formation* be a useful guide? The quantitative study of education. Because of the unity of intelligence, the method of securing control of experience in one field may assist in securing control in any other field. The sciences of physiology, psychology, and sociology in their relation to the science of education.

(Science as a form of human activity arises within experience; the science of education arises within our experience in education, and is therefore a function of educational practice. The question is often asked: Is there a science of education? a question based upon a special interpretation of the meaning of science. It does not appear that the search for a methodical treatment of education is to be abandoned, even though perfection has not been attained at this early stage. The science of education is *the method thus far established of controlling experience so far as it is concerned with the educational process.* The theory of education should set forth, not a set of educational categories or principles independent of or isolated from one another, but an interrelated system "within which every assertion entitles us to other assertions, and to which we are entitled only through other assertions." The science of education aims at securing *the method by which the educational process may be increasingly controlled.*)

4. *The twofold aspect of education as a science.*—(*a*) The *psychological,* and (*b*) the *sociological.*

(A feature fundamental to the present outline is the conception of the organic unity of the individual and society. The study of the growth of consciousness, whether in the race or child, points to the conclusion that the real self is always a social self; that the nature of the individual is essentially social; in other words, the individual's relations to his fellows are not external attachments of his personality, but the source of its inmost content and reality. The completely isolated individual, uninfluenced by social forces, does not exist as a fact of experience. The process of education, therefore, is conceived *as essentially a process of social interaction between the two factors of the experience process, society and the individual.*)

5. *The science and the philosophy of education.*

(It may be noted in this connection that in a systematic and thorough-going treatment of the subject—*by means of the regular college and graduate courses*—two main divisions would be found—divisions, however, which are not separate, but rather stages in the movement of intelligence in its attempt to come to a *conscious realization of the educational process in human experience:* (*a*) the science, dealing with the main features of the area which the subject comprises; (*b*) the philosophy, dealing with its boundaries, or its place in the territories of knowledge. The science, to a degree, isolates in order to organize; the philosophy unifies in order to adjust and interpret. The science of education, in other words, has to do with the theory of education as isolated by itself; the philosophy, while presupposing the science, *is the theory of the relations of education to other sciences and to the known world in general.* Philosophy aims to combine the analytic movement of science and the synthetic impulse of art in one intellectual endeavor. In such a process the science inevitably undergoes partial transformation and reconstruction. At the present time, owing to the fact that

education draws its materials from so many sciences, and owing to the remarkable development of these sciences in recent years, there has resulted a species of intellectual anarchy in educational theory. The single science, by itself, is frankly individualistic, and only unconsciously organic at best. On the one hand, the psychologist with educational leanings is apt to assert that his special discipline is the sole arbiter in educational theory; in other words, that educational theory, in so far as it can be made scientific, is simply "applied psychology." The sociologist, on the other hand, whenever his inclination takes a practical turn, is equally determined that educational theory shall become a part of the more comprehensive science of society. It is not a question, however, of identity, or of subordination, but of co-operative and complementary service. The worker in the philosophy of education must accept with gratitude the aspects of truth brought to light by the sciences which it presupposes. He must be mindful, moreover, that it is not in its positive contribution to human knowledge, but rather in the organization of that knowledge, that the true justification of philosophic inquiry consists. With the advance of the sciences which his inquiries presuppose, his task still remains imperative—to regulate the proportion that the contributions of the different sciences may assume, to co-ordinate and interpret the new materials, to unify them not only with one another, but with the other aspects of man's experience, and thus to restore to him a view of the educational process as a whole which is comprehensive, articulated, and wherein the different factors have free play.)

6. *The literature of education.*

II. THE PLACE OF EDUCATION IN HUMAN EXPERIENCE

1. *The philosophical bases of educational theory.*—(*a*) *Evolution* and (*b*) *idealism.*

(Evolution and idealism are regarded by the writer as the most logical and satisfactory foundations of a theory of education. It is assumed that even in a college course in the principles of education *some indication may be made of the more important implications for educational theory of these two doctrines.* On the basis of the doctrine of evolution the relationship between the educational process and that of organic and social evolution may be briefly outlined, and the influence of the more important factors in the process of spiritual evolution may be indicated. On the other hand, the doctrine of idealism—the doctrine, namely, which maintains that any developing series can be understood only in the light of its highest term, that any ultimate or philosophic explanation must look to the end of the process—in this doctrine a standard of interpretation is afforded by which the ethical and educational significance of the processes and influences of civilization may be estimated.)

2. *The doctrine of evolution as a scientific generalization and as a working hypothesis.*

(While keeping in mind the fact that the doctrine of evolution has not yet received its final philosophic form, and still awaits its final philosophic interpretation, a brief analysis of *its content as a working hypothesis* may be made in this connection. The concept of evolution implies (*a*) the intelligibility of the world, the possibility of establishing a correspondence between the course of nature and the mind of man, between the system of things and the system of human thought; (*b*) the organic oneness of all things in spite of the great contrasts in the spheres of mechanism, chemism, organism, and spirit, and the genetic connection of these orders of existence; (*c*) that in the genetic process, or in the process of becoming, there is developed out of the previously familiar the qualitatively new; (*d*) that the emergence of the qualitatively new is by means of forces inherent in the co-operating elements of the process, which work according to fixed laws of variation and under determinate conditions; (*e*) more particularly, that the course which any developing process follows is one of differentiation and integration; (*f*) that in every process of development there are present the two interrelated and co-operating factors: (1) the *individual* existence in which the development takes place, and (2) the *situation* or environment which affords the stimuli or the conditions through which the development takes place; (*g*) that in organic or social processes new formations or structures, whether vital, intellectual, or social, are to be regarded as instruments or methods of adjustment to specific environmental conditions.)

3. *The idealistic interpretation of evolution.*

(For both evolution and idealism, the unity of the cosmos, in some sense, "is not so much a conclusion to be proved as an inevitable assumption." If we believe (*a*) in the unity of the cosmic process, and (*b*) that there has been evolution and not mere aimless change, then in our interpretation we are forced either (*a*) to deny the statement *ex nihilo nihil fit*, or (*b*) to "read back the nature of the latest consequent into the remotest antecedent." The idealist may therefore accept Tyndall's remark that matter contains within itself the "promise and potency of every form and quality of life," for the reason that the mind is the "outcome," and the "realization" of matter, and therefore affords the interpretation of the ultimate nature of the latter. It would appear to be of distinct advantage, therefore, to assume that the law of evolution has been the mode of operation whereby the physical, intellectual, and moral natures of man have come to be what they are. In thus making man completely subject to the evolutionary law, we are admitting the method of evolution to be the absolutely universal method of creation whereof man in his whole being is the highest product; and what we gain from this conception is the right to interpret the entire process in the light of its end. In other words, the mechanical categories must give place to or be supplemented by the teleological, in our explanation of the process.

The conclusion seems to be warranted, therefore, on the basis of an idealistic interpretation of the evolutionary process, that spirit and nature are not wholly alien and hostile, but necessary and complementary elements in a unitary spir-

itual process. Religion, art, science, philosophy, as well as the common things of our common life, confirm our natural belief that nature is not indifferent to our human life, its needs, and its purposes, and tend to establish what seems to be the central truth of idealism, that the world is in essence spiritual, and its goal the perfecting of the life of man.)

4. *The doctrine of evolution, a means whereby the theory of education may be brought into relationship with the facts of the wider organic and social process.*—The doctrine of the significance of the prolongation of infancy as a factor in the evolution of man. Infancy as a period of adjustment. Elements in the educational process, (*a*) individuality and plasticity, (*b*) environment (physical, social, cosmical; from the educational point of view essentially *social*). Effects of the application of the doctrine of evolution to psychology and sociology. Types of education, (*a*) *natural* or *spontaneous*, (*b*) *artificial* or *telic*. Education as conscious evolution.

(The notion of adjustment [conceived as dynamic, not static] expresses sufficiently well for the present the essential nature of the educational process. This notion is developed more fully in later sections. Here it is enough to note (*a*) that the aim of education cannot be found *outside the process itself*. One purpose of education is the personal realization of his environment by the individual; (*b*) that we must define more fully environment before we can indicate that which the individual is to realize or become adjusted to; (*c*) that "method" in education is fundamentally the mode of the *individual's behavior in the realization of some phase of his environment*. Herein we gain a point of view from which to recognize the unity of educational aim, of educational materials and of educational methods.)

III. THE AIM OF EDUCATION AS DETERMINED BY ITS MEANING

1. *Interpretation and criticism of certain familiar educational categories:*—(*a*) information, (*b*) discipline, *c*) training, (*d*) efficiency, *e*) culture. The danger of fixed, or ready-made, definitions of education.

2. *Interpretation and comparison of various statements of the educational ideal.*

3. *The aim of education as determined by its meaning.*—Statement of the aim of education through an analysis of the educational process. The conception of adaptation or adjustment. The social purpose and the educational aim. Self-realization and the social aim in education.

(Kant used to say that the proper place for definition was at the end of one's inquiries. From one point of view, a true statement of the aim of education can be made at the close rather than at the beginning of such an outline as the present. The purpose of the present section is therefore merely to indicate in a quite general way the line along which the statement of the educational aim must lie. The fuller working out of this conception of adaptation or adjustment constitutes, in reality, the fuller explication of the educational aim as it is revealed in the meaning of education. The one fact which it is hoped will be made clear is *the fact of the organic unity of the aim, means, and method of the educational process.*)

IV. THE PRESUPPOSITION OF EDUCATION: PERSONALITY AND ENVIRONMENT

1. *Personality as the pre-eminent reality in experience.*—Self-activity as the essence of personality. Stages in the development of self-conscious mind: (*a*) primitive sensibility, (*b*) subject-object consciousness, (*c*) self-consciousness. Mental development through self-activity.

(In the second section, where the attempt was made to bring the educational process into harmony with the life-process, it was found that the essential elements in the latter are (*a*) thing and (*b*) environment. As a fact of experience the educational process presupposes (*a*) *a self or person* that behaves, and (*b*) an *environment* in which it behaves. As will be indicated in a subsequent section, the emphasis must in many cases be on *function* rather than on *self* or *environment, agent* or *situation.* It is impossible to consider the self apart from its environment, or, in turn, environment apart from the coefficient of environment. The difficulty with the so-called faculty psychology was that of taking the mind as a completely equipped self-existing entity, *afterward brought into contact with an environment.* There was also, on the other hand, the tendency to go to the other extreme and maintain that the self in the beginning was practically *nil*, environment was self-existing, a sort of *thing-in-itself*, capable of generating mind in some way. The process of the individual life is a unitary thing, in which an ideal distinction may be made between the self and its environment, the agent and his sphere of action. It is a process of interaction, the factors of which are for purposes of examination separable, in reality inseparable. In the present section, however, the problem would be to give some consistent account of the nature of the two—self and environment—and their mutual relations. It may be briefly remarked, in passing, that the self has reality as a center of experience, of a particular thought-and-action content, the bearer of the concrete life of an individual. The synthesis of knowledge and of conduct which composes that content arises from the self's own activity, and in its own degree expresses the soul's intrinsic character. The self, moreover, is no mere aggre-

gate of parts capable of existing separately without losing their character. It is a systematized unity, the various members of which, appearing at various stages in its development, appear with a distinct place and function, *each unintelligible apart from its function in that development.*)

2. *The nature of environment.*—As relative to the specific nature of the individual. Not an unchanging form, but a changing process. Environment as the medium of self-realization. The environment of the human individual (from the eduational or ethical point of view) as essentially social. The connection between plasticity and the possibility of the *control of adjustment, in which education as a human institution consists.* Adjustment implies (*a*) participation, or culture, (*b*) control, or efficiency. The first is the conservative aspect of education, making for order and continuity; the second, its progressive aspect, making for change or progress. In the human being, adjustment implies conformity of a self-conscious personality to an environment which also is undergoing constant change.

(On the basis of the community of nature between the self and its environment—since they are the terminal aspects of one movement—the nature and possibility of their mutual adjustment or interaction become intelligible. The self through its inherent activity is able to maintain itself in a (social) medium that is not alien, but fundamentally of one kin with itself. Its activity—i. e., *its adaptation through intelligence and will*—is not a consequence of the self, but its essence. Moreover, not only is the self able to maintain itself in its environment through adaptation, but through the same process of adaptation to realize itself, for the reason that knowledge of and conformity to the social order which forms its environment is essentially the process through which the self is realized.)

3. *Environment as "civilization."*—The basis of civilization in the molding of his environment by man in the interests of human life. Civilization as the progressive articulation and realization of human nature implies (*a*) *science,* as knowledge and as instrument of control; (*b*) *language;* (*c*) *art and literature;* (*d*) *social and political institutions;* (*e*) *religion.*

(In the foregoing analysis—a merely tentative one—of the more persistent, dynamic, and cultural elements in civilization, it is assumed: (*a*) That the most satisfactory psychology of race-development is a psychology of action; man's ever-increasing wants rising into desires and his perpetual efforts to satisfy these wants. The history of man, then, the history of civilization, is the history of human achievement. (*b*) That man's achievements in civilization are social achievements and have therefore been brought about by some form of social action and co-operation. The ultimate social fact, the second factor in civilization, is that

of "men acting together" for the sake of interrelated ends. (*c*) That the material of human activity is nature. Civilization is ultimately possible because man and nature, activity and material, are not isolated entities, but rather phases of one spiritual movement or process. From the beginning man has been in some kind of functional relation to his environment. His life has presented itself to him as a series of problems to be solved. (*d*) That civilization in the largest sense represents *the methods of the life-process*, the tools of the mind invented by man in the course of his experience for the registration, organization, control, and perpetuation of his experience. It has thus a retrospective as well as prospective aspect. In civilization, therefore, as *the organization of human life thus far attained*, there are certain fundamental "methods" or norms which are inherent in its natural constitution, and which reproduce themselves in all its manifold forms. (*e*) That, in the brief analysis, made above, of these normative elements—science, language, art and literature, institutions, and religion—these must be continually viewed as interrelated aspects of a common social experience of activity; they are the general elements of civilization—elements which constitute the real existence of the concrete and organic unity of society Each of these elements has its retrospective and prospective reference; each represents a fundamental habit and accommodation in the life of the race. All together they are functional elements within the social process, mediating agencies in the communication or transmission of experience, instrumental to the spiritual life of man. (*f*) That the evolution in nature and civilization has its goal in the elevation and expansion of the personal life. It will, it is hoped, be made somewhat clearer how necessary to any adequate statement of the "Course of Study" is a chart of civilization—a morphological or psychological presentation of the great methods or norms according to which human experience has been organized, elevated, and expanded. Adequately to state what science, art, or religion means in the movement of the individual's experience it is ultimately necessary to trace their significance in the movement of the spiritual experiencc of the race.)

V. INSTITUTIONAL FACTORS IN THE EDUCATIONAL PROCESS

1. *Education as a process of social transformation.*—Informal and formal education. Two-fold aspects of the process, (*a*) participation in the experience of others and the gradual recognition of the value of social life; (*b*) the achievement of power on the part of the individual to express himself in social directions.

2. *Society as a medium for the communication of experience.*—Moral institutions as meeting points for the functional activity of the members of society. As (*a*) embodiments of a more or less permanent system of purposes, (*b*) centers for the transmission of experience, (*c*) instruments of social control.

3. *The educational significance of the great human institutions.*—(*a*) home, (*b*) school, (*c*) vocation, (*d*) state, (*e*) church. Interrelation and interdependence of the several moral institutions.

(A fundamental need of the social mind of the present is such a disciplined social self-consciousness as will gradually express itself in more intelligent and more thorough-going methods of social intervention. There need not be any depreciation of the experience of the past, and no honest effort should be undervalued. Yet any creditable program for social betterment must be based on an adequate *investigation and formulation of all the conditions of human welfare.* There is real danger when any one of the so-called elements of the social problem is attacked in isolation from the rest. Such an attempt may tend only to increase the popular sensitiveness and irritation. A social theory, *issuing in a social method,* is essential to any approximately adequate preparation for the study of the problem of social reconstruction. Only through such study—a study in which all the elements are brought together in organic relation—is one enabled to see how social tendencies may be projected into coherent and tenable social ideals. In like manner lack of clearness concerning the objects at which education should aim, the ways in which educational principles should be applied to the concrete problems of social life, and *lack of correlation among the various educational factors in society,* are responsible for many of the shortcomings which exist in present educational practice. Education has become the most important method of social intervention. It aims consciously to control the direction of the social process. As a method of social control in this larger sense, however, it as yet remains largely empirical. It can become rational only when educational theory is made an organic part of the philosophy of society. The organic interdependence of the two must be recognized. Educational theory cannot be studied in abstraction from social theory. Moreover, since the theory of education is a part of a larger social theory, it may be well to indicate in brief outline a working conception of the term "society." It will then be necessary to point out what society, on the one side, and what the individual, on the other, contribute to the educational process, how the two are organically related, and *how society through institutions aims to perpetuate itself,* to enlist the individual in its service and provide conditions suitable to his realization. First of all it is to be noted that society is not to be identified with the state, the government, the family; nor is it the mere aggregation or combination of these. Society or the social process is rather the organism of which "institutions" are the organs; the latter are functional elements in the larger functional whole. This notion of society as a process should be emphasized. As in the mental process experience is communicated and transmitted from one level to another, and the continuity thereby maintained, so in the social process there is the continual communication and transmission of experience from individual to individual. The conservation and transmission of experience alone render the continuance of society possible. Social experience is projected or embodied in institutions, and institutions, there

fore, serve to link individuals to one another, and the generations each to each. The various institutions, then, may be defined as *the objective methods of control which men working together for the sake of interrelated ends have thus far achieved.* This transmission of experience takes place in every form of society, savage or civilized, the difference being that while in the former the activity is for the most part unreflective and instinctive, in the latter there emerges a more or less deliberate intervention in the *methods of communication, distribution and transmission;* and in its higher development as a human institution education becomes a specific agency in the general societary process for *the systematic communication and transmission of human experience.*)

PART II. THE COURSE OF PERSONAL DEVELOPMENT

VI. THE BODY AS THE INSTRUMENT OF THE MIND

1. *The psycho-physical organism.*—Functional relation between organs and environment. Structure and function of nervous system in organism. The *functional unit.*

2. *Principles of development of the psycho-physical organism.*—Differentiation and integration of function. Gradual development of nervous system and body as instrument of the mind. Place of play, games, gymnastics in the *organization of the body.* Habit and control. The dualism of mind and body teleological rather than ontological.

(Concerning the relation between body and mind, the physical and the psychical, two well-defined types of theory may be noted: (*a*) the *ontological,* and (*b*) the *teleological* [or the evolutionary, strictly interpreted]. According to the first, mind and body are disparate and separable entities, each subject to growth and transformation apart from the other; the second regards the body as the organ of, and instrumental to, the mind. The theory of the relation of body and mind assumed in the present outline is the teleological. As said above, it is assumed that the essence of being is one in kind and spiritual. Between mind and body there is no essential antagonism or opposition. The mind is no fixed entity separable from matter If we are to trust our experience, matter cannot be as foreign to consciousness as is ordinarily believed. If the analysis made in preceding sections be true, mind and matter, soul and body, are terminal aspects of a unitary, living, spiritual experience, organic throughout, and in which the so-called nervous system, body, or matter, *is instrumental, the machinery of its growth and of its expanding life.* Many look upon the physical as something set over against the spiritual, something that restricts, confines, enslaves. It is interesting to note that Plato, one of the first to indicate the spiritual significance of physical training, should in his metaphysics look upon body and

mind as disparates, and yet *in his theory of physical education he proceeded on the basis of the teleological conception of mind and body*. For while the speaks of gymnastics for the body and music for the soul, he is nevertheless very careful to insist that fundamentally *the soul and not the body is the object of gymnastics as well as of music*. For Plato, in his theory of education, body and mind are not simply two opposites, on the same level. In making the body subordinate or instrumental to the mind, he makes it instrumental to a *comprehensive purpose in life*, thus avoiding the one-sidedness which in the judgment of Aristotle made the physical training of many Greek states a failure. For both Plato and Aristotle the aim of physical education does not lie merely in physical training. *Rather its significance, its spiritual quality, is found in its effect upon character*. Our problem is still the problem of Plato, "to blend music with gymnastic and apply them proportionately to the soul."

According to the view expressed here, the physical with its senses and stimuli is the very means whereby we gain freedom. The child feeling the pain from the finger thrust into the flame, and thereby restraining itself afterward, is not limited by the bodily senses or its nervous system. Rather is its nervous system the very instrument through which its freedom is gained. Moreover, just as the body, and nature itself, are instrumental to the self, and no mere hindrance, in like manner is the machinery of institutions no mere hindrance, but the very medium of escape for the individual from the domination of mere instinct and impulse to conscious self-determination. No adequate statement of freedom as a ready-made faculty or power of mind can be given in a paragraph, if at all. Yet when we take the so-called physical and institutional life, *not as mere external and antagonistic opposites, but rather from the teleological and instrumental point of view*, we may realize more fully the significanee of the most apparent and the most fundamental fact in experience, namely, that the consciousness of self implies the consciousness of the not-self, and grows with it, and by means of it. Thus eonceiving the self and the world as the terminal aspects of a living organic reality or experience, and communicated to us [through consciousness] in inseparable correlation, we can regard neither one as a resultant of the other. Together they constitute a functional manifestation of a unity which is their common and absolute ground. What, then, is enforced in this section is the impossibility of conceiving a soul or mind in itself, a pre-existing entity, or of a matter in itself, a self-contained existence. Keeping by experience, we recognize that subject and object are never met by us apart. They are distinctions within a unity, but not different or antagonistic entities. And it scarcely need be remarked in passing that the doctrine outlined above is neither materialism nor subjective idealism. It is an attempt to construe teleologically the relation of mind and matter, without obliterating their differences nor reducing one to the other; securing the reality of both in a life whose variety is unity and whose essence is spiritual.

If it be granted (*a*) that there is an organic or instrumental relation between soul and body, psychosis and neurosis, (*b*) that our knowledge of the neurosis must be through the psychosis, and (*c*) that gymnastics or physical training are

ultimately for the sake of the soul, it would appear that a knowledge of psychology of growth, of physical processes and mental imagery, would be of material assistance in comprehending the physical stimuli, through play, games, gymnastic exercises best suited to the harmonious upbuilding of the psychical life to which the physical is admittedly organic and instrumental. In other words, our knowledge of the genesis of mental life should, to a large extent, be regulative in our attempt to control the genesis of the physical life. According to the teleological view of the relation between mind and body, the educational purpose is growth of the consciousness of self, and the organization of the body for the utilization and control of environment, and thus the liberation of the self's latent energies. The nervous system, accordingly, is the instrument whose function is the co-ordinations of the adaptations necessary to the life and growth of the self. For the self, the nervous system (*a*) manipulates environment to its purposes, (*b*) adjusts its organs for the sake of a more complete service. The two phases or the organization of the body as the instrument of the mind by means of the sensory and muscular system are (*a*) the process of differentiation and (*b*) integration. The one fundamental and exclusive function of the nervous system is therefore the co-ordination or integration of differentiated acts, sensory or motor, to a common end. Assuming, then, for the present the various epochs in psychological development during which this process of physical differention and integration takes place, the charasteristically play period, for example, may be briefly noted in certain of its more prominent needs: (1) Play is fundamentally a psychological attitude, not an external activity; hence the need of psychological appreciation by the teacher. (2) Since the aim of physical development is differentiation and integration of the body as instrument of the soul, the necessity of selection and adaptation of such physical activities as will assist in giving the soul as complete possession as possible of its instrument. (3) A thorough study of the *expression aspects of the various parts of the curriculum*, in order to indicate more fully their expression values and suggest means whereby present practice in those parts may be improved.)

VII. THE NATURE OF EXPERIENCE

1. *General features of conscious life.*—Unity of experience. Continuity of experience. Theory of mental elements. Activity as fundamental features of the experience process.

(Notwithstanding the remarkable development which has taken place in psychology in recent years, its positive contribution to the study of society and education has been somewhat meager. On the one hand, owing to the prevalence of an individualistic method in psychology, the sociologist has received a very inconsiderable amount of assistance from his psychological studies, and very often indeed the individualistic tendency in psychological investigation has been carried over into the domain of sociology with an effect in certain instances little less than baneful. On the other hand, education has likewise profited but

little from psychology. Here again the individualistic method in psychology has in many instances worked against, rather than in behalf of, sound educational theory. But, in addition to this, there is the fact that psychology has been "structural," furnishing an anatomy of the adult consciousness, rather than genetic or functional, furnishing what might be called a physiology of the mind in the process of psychogenesis. It is with this psychogenetic process that education is for the most part concerned, and it will be readily seen that until psychological investigation becomes both social and functional or genetic in its method, education will receive from psychology little more than incidental assistance.

In the present outline it is implied that for an interpretation of individual or social activities such as will be of most value in educational theory, recourse must be had to a functional or evolutionary psychology, according to which the psychical life, whether in the individual or society, is to be interpreted as a function of the wider life-process. For a functional psychology the fundamental and central element of the psychical life is not sensation or idea, but an activity. Back of this unit of psychical activity—namely of the individual self, or of society—we cannot go. In each of these, however, in the individual and in society, the one universal activity is that of living, or the life-activity. As a concrete reality, then, the individual or the social is revealed to us as a teleological process, a system of means and ends, the unity of which is found in the general end of control over the conditions of life. All minor activities within experience are to be interpreted as partially or completely unified or harmonized activities within the larger process of life-activity or realization. The general position, then, of a functional psychology is that in determining what consciousness is, recourse must be had to an examination of what consciousness does. It attempts to escape the extreme positions of both (*a*) empiricism, according to which the mind is conceived as a product rather than a principle, and of (*b*) rationalism, which in one form or another conceives of the soul as a pre-existing, spiritual entity, endowed with capacities or faculties, prior to the exercise of such faculties or capacities, existing behind these as a kind of [transcendental] substance or substratum, and before the objective world has as yet disturbed the pure unity of its essence. The view of evolutionary idealism is not that the mind is mere product or epiphenomenon, nor a mere transcendental spiritual substance which [so far as actual experience is concerned] is a pure abstraction, but that it is a concrete specific activity constantly directed to the accomplishment of something, and not only the bearer of the experience process, but an efficient agent in its furtherance. From this general conception it follows: (*a*) That in the mental life, as an organic unity, consciousness cannot [without a complete departure from reality] be abstracted from its relations. Prior to and apart from objective experience, consciousness is an illusion. It will thus be apparent how necessary it is in the analysis of experience to keep in mind its organic unity; in other words, the organic relation between consciousness and its object, the agent and the situation or conditions in which the activity proceeds. (*b*) That just as the life-process is a continuous co-ordination or

functioning of the two elements, organism and environment [compare the act of breathing which is a functional co-ordination of the lungs as organ, and air, as environment], so the mental life is a continuous co-ordination or functioning of two elements, self and environment. Herein we see the difficulty of the empirical and rationalistic position. Just as some biologists would identify function with organ alone, making environment purely external, or with environment alone, making the organ simply a product, so the empiricist would make the self a product and not a principle, while the rationalist would make the soul a principle existing prior to its contact with the objective world, and, at most, maintaining only incidental relations with the latter. On the other hand, the evolutionary view of mind maintains that the relation of consciousness or self to objective experience or environment is absolute and intrinsic. An isolated consciousness is no consciousness at all; it is a self-contradiction. (*c*) Since the mental life is not the outcome of a predetermined self upon an external environment, or of the adjustment of the self to a predetermined environment, neither the self nor the environment is eternally fixed in itself, but both change in the movement of the life-process. In the functional movement of the mental life both the self and the environment are modified and determined. Both are essentially transitional, in a continual process of becoming. The self is real only in so far as it continues to act, to become, to progress. (*d*) Self-consciousness is not a subsequent or higher growth of consciousness, but in rudimentary form at least is a quality of all consciousness. It is consciousness with ***the emphasis on the subject rather than the object, the agent rather than the situation.***)

2. *The place of knowledge in experience.*

(A brief note may serve to indicate the line of treatment of the place of knowledge in experience, from the point of view of a functional based upon a genetic psychology. All knowledge involves both percepts and concepts, sensations and ideas or their combination. These may be briefly discussed from the point of view of (*a*) origin, (*b*) content. *Sensations:* (*a*) The biologist maintains that the organs of sense had their origin in the problem of the life-process. Such variations as were of service in the life-struggle were selected; others, offering no positive contribution, were discarded. The sense-organs were thus in their origin organs of adjustment, methods of economy; through natural selection their increasing perfection meant more perfect adjustment, i.e., increasing self-maintenance on the part of those possessing them. Thus, biologically, the knowledge mediated by the sense-organs had its origin in the needs of the life-process, it was an instrument of control, in securing food or escaping danger. (*b*) In the child again, activities in the form of inherited instincts and impulses precede sensations. His characteristic is impulsiveness; he is essentially a motor being. The child's curiosity is preparatory to some activity, a prelude to behavior. It is ever in the interest of some experiment on the part of some bodily organ, usually the hand or mouth. For him the objects of his environment are the particular activities which they suggest, and distinct sensations are the sensible news of his behavior.

(*c*) In the adult consciousness, likewise, the sensation is a sign, and has significance only as part of a larger whole. When do we have sensations? Examine such experiences as taking the car, looking at your watch, the clock's ceasing to tick, walking over an unaccustomed road, moving the ears, etc. It will be found in such experiences that sensations either regulate activity, or are signs within the experience circuit, i. e., the *retrospective* reference; or, through their appeal to attention, they furnish the materials of a new problem, i. e., their *prospective* reference. Only a very brief statement of the nature of *ideas* can be made in this connection. The concept or the idea, as is true of sensation, has a retrospective as well as a prospective reference. It is (*a*) a *register of past experiences*, a habit, a method of ordering sensations. On the other hand, an idea embodies (*b*) *a plan of action*. Its function within experience is not only to organize experience, but to institute or furnish the method of future experience. Its function, therefore, is essentially mediatory, instrumental. Thus the definition of idea is in terms of its function, of its position in the movement of experience. It is the instrument of the growth of experience from the less rich and less definite to the richer and more definite forms. To illustrate, take the judgment, "The pencil is sharp." "Sharp" is an idea, but sharpness does not exist in reality; only as a quality, emphasized within, or abstracted from, experience. Why, then, form the idea or concept of that which does not exist? Simply because the idea, so emphasized or abstracted, will furnish a sign, a plan, a method of future action. The idea "sharp," then, is ultimately instrumental to a larger experience process, e.g., that of writing. Ideas, then, in providing a method or plan of action made for economy within experience, enable us to anticipate, and thereby control future experiences. They are thus constructions of the past and of the future. Herein is their kinship with science. Ideas are plans of action. Laws of science are constructions of the past and future behavior of those realities with which man has to deal. Ideas and sciences are thought-constructions for the registration and control of experience. Sensations, ideas, science, are thus seen to be regulative and mediatory in the conduct of life.

From the point of view of a functional psychology all phases of psychical activity may be grouped about two fundamental types—*habits* and *accommodations*. Activities once successfully performed tend to be selected, to persist, to become habits. Just as soon as experience becomes problematic, however, i. e., as soon as some break occurs in the adjustment process [consequent upon the failure of some habit in the individual, or of a custom or institution in social experience], thought, in the form of discrimination, attention, and association, emerges to secure a new accommodation, and thus repair the break in experience through the establishment of a new habit. So long as habit [individual, social, racial] suffices—in other words, so long as experience flows smoothly, there is no occasion for the exercise of thought, since there is no problem to solve, no sense of failure, and consequently no search for a better method—i. e., a better accommodation or adjustment. From this point of view the function of thought is mediatory between experience and experience; in other words, between some

habit [experience, activity] which has failed to satisfy, and some new accommodation [which, if successful, will be selected and become habit] which will restore harmony to experience once more. Thought, then, as mediatory has a twofold aspect: (*a*) retrospective, i. e., interrogating our present habits, or modes of experience leading to a consciousness of failure; (*b*) prospective, through consciousness of break in experience, searching for the new accommodation and the more harmonious and satisfying experience. Thought, then, arises within the experience-process [whether in the individual or the race] out of activity, and is ultimately for the sake of activity. If experience or life were uniform, feeling and instinct would suffice for its continuance. If, however, there is to be progress within experience, thought must emerge as doubt and as inquiry. It must bring order and control into experience; it must expedite the experience-process and eliminate the waste entailed in mere instinct and feeling.)

VIII. THE DEVELOPMENT OF EXPERIENCE

1. *Experience as an organic unity.*— Experience as dynamic, and following, therefore, in its changes the processes of increasing differentiation and integration. Distinction between *growth* and *development* of experience or of the mental life; (*a*) by mental growth we understand the expansion, an increase in the stock of our experience; (*b*) by mental development we understand the elaboration or reconstruction of experience into more complex form, and an increasing organization and control of it. In mental development are found the following characteristics: (*a*) an increase in the content of experience; (*b*) an increasing complexity of mental processes; (*c*) an increasing facility and power among the various mental processes; (*d*) an increase in the organic unity and solidarity of experience.

2. *Main distinctions within the unity of experience.*—The danger of hard and fast separations. Experienee as a teleological system, a system of means and ands. Habits and accommodations. Experience as problematic. The emergence of sensation, idea, thought (as discrimination, attention, association). Interest and imagery. Observation, comparison, judgment. Memory. The place and significance of feeling and emotion. From will to will. Will no separate faculty. Will as self-realization.

3. *Epochs in the development of experience.*—The continuity of inner experience. The child's equipment. The development of the child-mind. Stages of development. Phases of psychogenesis. Acquisition

on the basis of inherited tendencies. Imitation, communication, expression. Imagination. Play. Growth of sense of self. Growth of reflective interest and attention. The signs and psychological effects of the period of adolescence. The development of experience due, not to a growth of separate faculties, but to an increasing complexity of activity and interest. Educational implications.

4. *The forms of ideal construction.* Knowledge as idealization. Idealization as teleological. Knowledge as the *technique of action:* theory and practice. The fundamental forms of ideal construction *involved in the building up of experience:* (*a*) the external world, (*b*) the self; or, more definitely, (*a*) perceptual construction, (*b*) scientific construction, (*c*) æsthetic construction, (*d*) ethical construction, (*e*) philosophical construction, (*f*) religious construction.

(In a theory of education an attempt must be made to determine in some degree the nature of the bond or unitary principle which holds together the phenomena of consciousness as such. It must have some doctrine which will indicate the possibility of certain indubitable facts in education and ethics; e. g., continuity of experience, responsibility, progress. It will be remembered, of course, that the nature of anything can be determined only in so far as it is found within experience, and that only on the basis of what a thing does within experience can we form a conception of what it is. Now, in our conscious experience the uniting principle among its phenomena is revealed, not merely as unitary, but as one possessed of a specific character, viz., a self or subject. It will thus be recognized that the self is a basal concept in education. The term might be used as identical with the totality of the experience-process in its unity and continuity—as including both self-consciousness and consciousness of the object. Used in this sense, it is, as has been pointed out, essentially an organic unity. Or we may use it as a terminal aspect of the experience-process, with the emphasis on the agent rather than on the situation within that process. On the level of sensations we seem forced to regard the self as a principle of activity which manifests itself, as Herbart and Lotze would say, as an internal principle of reaction against that which would impair its individuality. This reaction is not to be conceived, however, so much an act of self-conservation as of self-realization, for the reason that [as has been pointed out in previous sections] the stimulus or environment is not a foreign or alien something, to which the mind is mechanically related, as though mind and matter were distinct entities instead of terminal aspects or phases of a unitary process of experience. According to the present doctrine, a self or person is no mere succession of states of consciousness. Within the self there is admittedly a stream of conscious states, but beneath this continuity of ideas the *functional activity inherent in the experience process becomes the foundation for that permanence of selfhood which we attribute to a person*—in a continuity of activities

rather than of ideas, of instincts and habits rather than of any stream of conscious states. The self is real only in so far as it continues to act, to function, to become, to progress. In the self, therefore, is found a process returning upon itself in such a way as to retain its existing quality or individuality. While changing, it is nevertheless permanent, remaining one, as it does, in its life-process, i. e., *one in and through the unity and continuity of its activity—its character.* A person, therefore, may be defined as a self-conscious subject, distinguishing itself from, yet realizing itself in and through, the objects it knows and the ends it chooses. Self-activity is the essence of personality. Through self-consciousness it can become its own critic; i. e., through taking the standpoint of the universal, the self, as an element within experience and as its bearer, or agent, can take up an attitude of approval or disapproval to the factors which have entered into the process. Man's life is progressive because the self-consciousness through which he returns upon himself is not an endowment, but a process. We may, therefore, summarize our conception of a person thus: (*a*) *self-active principle*, creative in the objects it knows and the ends it chooses; (*b*) *self-separative, or self-estranging;* in other words, a person is never an exclusive self, but one whose progress consists in a continual transcendence of his exclusiveness and in a realization of himself in and through that which seems at first to be set in opposition to him.)

IX. THE SOCIAL CONTROL OF INDIVIDUAL DEVELOPMENT

1. *The social nature of individual experience.*

(In preceding sections it was noted how dependent is the individual on his social relationships. The self is bi-polar unity, containing within itself the terminal aspects of a unitary personal relation, the so-called ego and alter, the latter being also *part of a common thought- and action-content.* Thus the individual is in society to the degree that society is in the individual. The individual soul is an existence, which *appears and lives in the sociality of human beings.* When we give attention to the social aspect of the course of personal development, the individual is seen to be a social fact, the outcome of a social effort. The individual to begin with is an energy, of course, as endowed with inherent qualities and instincts, but these are made his own, are actualized only through an effort, through an action. *The law or principle of this effort, of this actualization is sociality.* In other words, the human soul is made only in the presence of other human souls which are themselves in turn only in the process of making. At first, therefore, we may insist on the reality of individual and social interaction, even though from the point of view of a truer idealism the idea of community should be substituted for that of interaction. The social life or continuum with the subsidiary processes of differentiation and integration is a life manifesting itself through a system of organs, and these organs, in coming to realize the community of the social life, become social members or persons; and the social life becomes integrated and unified only in so far as its members become partakers of the social purpose and yield themselves up to the realization of that purpose.

It may be said, then, that the individual provides the "matter" [in the Aristotelian sense] of experience, while society provides the "form." *The individual brings instincts and impulses; society brings "values" and typical activities.* Experience in the individual is the outcome of these two "energies," namely, the qualities, impulsive and instinctive of the individual, and the stimuli, interpretative and regulative, of society. It is a false antithesis, therefore, to isolate and contrast the individual and social aspects of experience. It will thus be recognized how in human society there goes forward the process of differentiation and integration, the emergence of the individual, of the person, and yet his increasing consciousness of his own dependence upon the labors of others. The process of social evolution from one point of view is the result of one individual learning to perform some one function, which may enable another to give his attention to something else. Society is thus the body, or medium, in which this tendency to reciprocity, inherent in human nature, has become incarnated. Society thus implies a fundamental interdependence between its members, an increasing reaction of one upon another, as well as a continual interchange of services between them. There thus emerges a category constitutive and regulative in the social process — that of *vicariousness*, in other words, the conception of the ultimate reality of society as conditioned by the just interchange of services among its members. Our present social order is stable to the degree in which it secures this just interchange of services among its members; it is insecure, or at least transitional, to the degree that we have as yet only partial interchange of services, and at times an out-and-out repudiation of social responsibilities on the part of some [or perhaps many] of its constituent members. Thus it will be seen how the many phases of the social situation may be analyzed in terms of the inadequate realization of vicariousness. In this idea of the interchange of services we find a category without the use of which we can take no step toward an adequate insight into or analysis of the social situation.

For example, we know how during the past century in industrial life the man was in a large measure displaced by the machine. Production was enormously increased, and we may expect it to increase in the future more and more. There certainly is a sense in which, with the increase of productive power, the factor of individual capacity has decreased. It may be that the worker's position is in many respects better than before, and yet there may be more than a mere monetary division between rich and poor. The question rather is, What share does the worker have in what he produces? What are the moral and spritual values for him in the work produced by him, but appropriated by another, who has neither the disposition nor the knowledge to give back to the worker some social, moral, or spiritual equivalent of his work?)

2. *The meaning of social membership.*—Typical conceptions of the relation of the individual to society: (*a*) the individualistic or monadistic, (*b*) the socialistic or monistic, (*c*) the dualistic, (*d*) the organic. The latter view attempts to adjust the claims of the other

three in a theory more conformable to the facts. It treats the individual as a *functional element in a larger functional whole.* According to it the two factors, the individual and society, are regarded, not as two separate modes of being, but rather as two phases of one reality, distinctions of function, of modes of operation within a unity. Within the unity there is relative independence of parts: yet the parts are what they are in virtue of their relation to the whole. In other words, apart from society the individual has no life; his purposes can be realized only by realizing the larger purposes of society. The presuppositions of such a view are (*a*) identity of interest between the individual and society; (*b*) the possibility of individual development (and hence education) lies in his increasing participation in the social consciousness and in social activities. The ideal of society is one which the independent or joint efforts of its members as individuals, capable of thought and action, may help to realize. *The truth of the individual life, accordingly, is found in a fully organized, i. e., moralized society; and of society in a fully realized individual.*

(In the fragmentary notes furnished in this section an attempt is made merely to suggest some of the more important phases of social theory which would of necessity be discussed in an ordinary college course in educational principles. The fuller discussion of such material would necessarily be reserved for courses of a more advanced nature in the philosophy of education.)

3. *The characteristics of the socialized individual.*—(*a*) Moral insight, (*b*) virtuous disposition, (*c*) consistent action, (*d*) efficiency. Self-realization as a process in which the self (*a*) comes to be more completely defined, i. e., individualized; (*b*) but defined through membership in a larger unity. Education as necessary to the production of a person.

4. *The process of social control.*—(See also Section v.) Social order and unity. The grounds of social control. Experience in the individual the outcome of two "energies": (*a*) the qualities, impulsive, instinctive, deliberate, of the individual agent; (*b*) the stimuli, as norms, convictions, methods, values, regulative and interpretative, of society. Means for the social control of individual development: (*a*) imitation and suggestion, (*b*) habituation, (*c*) instruction. The place of education in personal development.

Conservatism and progress. Progress through individuals. The growth of individual freedom.

PART III. EDUCATION IN THE SCHOOL

X. THE SCHOOL AS A SOCIAL INSTITUTION

1. *Essential continuity of the educational process.*—Reasons for lack of continuity in the organization of the school at the present time. Adjustment of motives underlying various types of school and various phases of school organization.

2. *The school as a moral organism.*—The school as a miniature community. The social function of the school. An embodiment of the social purpose. It simplifies existing social life. Presents a selected environment. The teacher as organizer of the community life of the school. Respective functions of the several types of school in mediating the spiritual possessions of society to its members and *assimilating them to the social purpose.* The problem of discipline in the school. School atmosphere and discipline.

3. *The school as an instrument of social progress.* The social order. The ethical possibilities of the course of study. Appreciation of the meaning of social membership. The development of the social consciousness. Not only must the school be an instrument of social order, it must also become more and more an instrument of social progress. Of course, at the present time the danger is lest it may become an instrument to individual success, rather than one of social order or social progress. Yet the problem at present is to make the society of the school *reflect that ideal toward which the wider social life is struggling.*

(The educational process is fundamentally a social process and is rendered possible through (*a*) the plasticity of the individual, and (*b*) a particular environment. The control of this process of participation in social experience, as was indicated in a preceding section, is exercised by the various human institutions. The policy of conserving the social order by means of a system of education is practically as old as society itself. The school as a form of institutional life is the special instrument devised by society for maintaining the existing standard of civilization by conferring upon the individual its spiritual possessions, and thereby enabling him to become a bearer of the social purpose.

As in the wider life of society, so in the school, the problem of education is the solution of the equation between the individual and society. The "social

personality" seems to represent the ideal. In other words, the offering of the individual to the educational process, or to society, is a capacity [at first in the form of mere impulse or instinct, of course], a power of action; in other words, himself as an organ or instrument; on the other hand, society's gift to the individual is (*a*) a method by which his impulses, instincts, etc., may be regulated and organized, and thereby his experience brought under control; (*b*) a worth, an interpretation, a significance, a value. Selfishness, of course, arises in the individual in so far as he regards any one of his powers or capacities as belonging to himself alone, and not as a medium for social functions; on the other hand, society treats the individual unjustly, causing his activity to become mechanical and deadening, when and where it withholds from him the quickening and expanding influence of its spiritual possessions, in the way of science, art, and literature. Thus the school, in society, must function in mediating the fund of spiritual values, interests, ideals, worths to the individual, and it must do this to the end that the individuals coming under its influence may be enabled to recognize —rather, to realize—the spiritual significance of their work. Education as a whole aims to saturate the activities and experiences of men and women with ideal values. Certain advantages and dangers in school education may be noted in passing. *Advantages:* (*a*) From the point of view of the state, it is a legitimate form of self-preservation. (*b*) Provision is made against the imperfection or contingency of private effort. (*c*) It provides a more complete social medium for the development of independence, emulation, leadership, than purely individual or private instruction. (*d*) It supplies the individual's first experience of public opinion and the reality of social judgment, justice, order, co-operation, fair play, etc. *Dangers:* (*a*) The danger that individuality may be submerged. (*b*) The danger in school education from overpressure in a broad sense, of quantity versus quality. (*c*) The danger of the school's becoming an aggressor against the legitimate function of other institutions—functions, indeed, which only the latter can adequately perform. The school is a miniature community. The education which goes on in the school partakes of the same general social character of all education. Its reality is relative to the reality of the social life found within the school. Its ideal is to widen and deepen the social consciousness of its members.)

XI. THE INTELLECTUAL ORGANIZATION OF THE SCHOOL

1. *The course of study and the method of instruction.*—The error of making hard and fast distinction between subject-matter and method. Social experience as a spiritual organism. The course of study as representing that organism (the corporate or interrelated aspect). Method as the form of personal realization and penetration of the intellectual order of the school (the individual or differential aspect). Studies as modes of self-realization involving

(*a*) instincts, interests, activities pointing to social life; (*b*) norms, interpretations, values conferred by society upon the individual. The two groups: (*a*) *sciences*, representing the processes (control) by which social life is sustained; (*b*) *humanities*, which interpret and determine the relative values (appreciation) of the various forms of social activity. The aim of instruction as mediating between the intellectual order of the school and the mind of the pupil in such a way that the latter may conform to its law, not as a matter of constraint, but as the natural expression of his own mind.

(A very persistent conception of the relation of subject-matter to method may be stated thus. On the one hand, the subject-matter is classified and arranged as a pre-existing objective material, ready to be imported into the mind. Method, on the other hand, is regarded as a purely formal affair, an altogether psychological matter, as though the mind were self-subsisting apart from its relations [or its environment], and had certain powers or modes of acting in and for itself. Just as for philosophic dualism there was an intrinsic separation between mind and matter, so in much of the modern discussion of the course of study, there is implied an intrinsic separation between mind and subject-matter. The relation of subject-matter and method thus becomes as difficult of comprehension as the Cartesian dualism of matter and mind. If against the Cartesian view of mind it be maintained that the so-called *subject* [mind] and the so-called *object* [the world] are equally the differentiated aspects or results of a unitary process, we are inevitably forced to the conclusion that subject-matter and method are not completely isolable entities, but are fundamentally the *terminal or differentiated aspects of the process of development of a unitary experience*.)

2. *The making of a course of study.*—The course of study presents two main problems: (*a*) the question of selection (differentiation), (*b*) the question of arrangement, (integration).

A. *Bases for the selection of school studies.*—(*a*) *Sociological.* Social life as principle of unity. Does the study (as a group of facts or principles gathered together and systematized) embody some fundamental phase of social experience? Does it represent a fundamental manifestation of or conviction in the spiritual life of the race? What great human interest is fundamental? (*b*) *Psychological.* Individual activities as principle of unity. What part does the study play in helping the individual to interpret his crude experience and to control his powers with reference to social ends?

(The problem, then, of the course of study is in reality the problem of adjusting (*a*) the agent or person and (*b*) the demands and opportunities of his sphere of action. There is a sense in which the individual is the ultimate factor in the movement of the educative experience. That is, in order to be *educational*, facts, ideals, activities must not only be appropriated, but transformed into the knowledge, purpose, or activity of the individual. This, however, does not mean that education is the product of the individual alone. For the requirements of the situation furnish the stimulus and control the response of the agent, and thus the direction of the movement of individual experience. In other words, *in the determination of the course of study, not the interests and activities of the individual, but the ideals, the requirements, the activities of society constitute the final standard.*

On the other hand, it is to be kept in mind that subject-matter is not something hard and fixed, external to the mind. The educational process is not the outcome of a mind with pre-formed faculties exercising upon external material, nor is it the adaptation of the mind to a material completely pre-determined. It is a process in which the organization of the material goes hand in hand with the organization of a self or person [compare the distinction between the *logical versus the psychological* view of studies]. The constitutive and defining element in a study is the particular interest or impulse it represents in the organic unity of experience. Studies fundamentally represent constructions by the mind of the world within experience from particular points of view. They arise through the interests, attitudes, and tensions, in the process of self-maintenence and self-development. But they exist only in the process of the experience of individuals. As "educational" material, so called, studies have existence only in the experience of some individual. The individual as subject of the experience, as the one through whom the movement of experience takes place, is the ultimate center of differentiation and integration in which mental development consists. The soul at any stage is an organic whole, and analysis and synthesis [or differentiation and integration] are correlative elements in the one organic movement of experience. From this point of view, therefore, it must be maintained that the nature of the mind at its various levels is an indispensable element in the determination of the course of study. In other words, just as for the theory of knowledge, subject and object are but the terminal aspects of the unitary process, so the *mind of the individual* with its attitudes, interests, instincts, on the one side, and *studies*, on the other, are fundamentally the terminal aspects or limits of a unitary, educative experience-process. In the process of learning the two are organically united.)

B. *The problem of arrangement.*—As has been indicated above, there are the two problems, the one of differentiation, the other of arrangement: How, on the one hand, shall the power of differentitation of the unitary experience into its inherently important forms be secured, and how, on the other hand, shall the various materials

presented be arranged with reference to each other, so that the differentiation may be furthered, and yet the unitary character of the learner's experience be maintained? This is the so-called problem of *correlation.* Consideration of typical plans for the correlation of studies: (*a*) *Herbartian theory of correlation by concentration;* (*b*) *correlation by co-ordination* (Harris); (*c*) *constructive activities of the child as center of correlation* (Dewey). Principles to be observed, (*a*) unity, (*b*) continuity, (*c*) adaptation, (*d*) reinforcement.

(The essential element in the problem of correlation is the *recognition of the psychological side of studies,* i. e., the recognition or realization of, e. g., history or arithmetic from the child's point of view, what it is as a form or phase of living, present personal experience. Instead of assuming differentiation and moving backward, we should assume the organic unity of social experience, or the interrelation of studies [studies intrinsically related, since social experience is unitary], and move forward with the child. The difficulty lies, it would appear, in substituting the adult's consciousness for the consciousness of the child. The problem is: How out of a given unitary experience [a circle of thought, as Herbart would say, with which the child comes to school], through working it over, remaking, utilizing, defining it, there gradually emerge the various studies. From this point of view, teacher and pupils co-operate in making the course of study.

It may perhaps be worth while briefly to note some of the more important implications of the doctrine of the social nature of consiousness in the organization of the course of study: (*a*) The necessity of continuity between the informal education of the home and the more formal education of the school. (*b*) The experience of the child with its habits, interests, and activities forms the true center of correlation in the educational process, viewed from the psychological side. From the social point of view, the principle is found in the typical social activities and interests. (*c*) If social experience is unitary, it follows that in reality there is but one subject-matter, now emphasized from one point of view, and now from another, in accordance with the level of experience attained by the pupil. (*d*) Character must be developed and trained, not so much through special instruction, as in the entire society of the school, individuals, studies, method, discipline, atmosphere. (*e*) It is necessary to maintain organic connections or balance between studies representing the facts or processes and those representing the ends or values of social life.)

3. *The various studies as instruments of experience.*—Studies as *plans of action* for the interpretation and control by the individual of his crude and unformed experience. Interpretation and control. The processes and ideals of social life. The sciences and the humanities. Their organic unity in the upbuilding of the personal experience of individuals.

4. *The method of instruction.*—The question of the relation of instruction to education, one with the question of the place of knowledge in experience. The nature of the learning process. The image as the medium of instruction. The aim of instruction: (*a*) correction, (*b*) organization, and (*c*) expansion, of experience. The function and conduct of the recitation. Examinations as (*a*) retrospective, (*b*) prospective. The social possibilities of the recitation.

XII. THE ORGANIZATION AND ADMINISTRATION OF EDUCATION

1. *Types of school as selective agencies in social life.*—The accepted divisions, primary, secondary, higher, a convenient classification for administrative purposes. Their interdependence.

2. *The problem of school education in democratic society.*—The question of administration of education and school supervision. The adjustment of education to contemporary needs. Industrial education. Industry and art. Scholarship and service. The university and the professional training of teachers.

3. *State interference in the education of the individual.*—Federal and state control. Social and moral basis of state control in education. Limitations of state control. Education in the school and its relation to social and moral progress.

III

In the preceding section the question of the possible content of a college course in educational principles was given at least a tentative answer. It only remains to make a brief reference to the relation which such a course bears to more advanced courses in the philosophy of education.

Philosophy has been named the mother of the sciences, and only by slow degrees has there grown up the family of the sciences. Now it is their fashion to dispute her authority in the household of knowledge. The future progress of both science and philosophy, however, will be through complementary service. Both deal with human experience. The various sciences differ not so much as dealing with different facts of experience, but rather as dealing with experience as a whole in so far as it can be studied from different

points of view. Philosophy attempts to co-ordinate the results of the various sciences, to introduce a principle of proportion, and to exhibit the organic unity of the experience process. Philosophy, therefore, is not a mere aggregate of the sciences, but that organism of thought or knowledge of which the various sciences are the organs. It does not aim so much to bring to light new facts as to reveal the significant connections of the facts brought to light by the various sciences. Philosophy gives significance to the sciences, while the sciences in turn vitalize and give concreteness to philosophy. In making use of the principle of proportion in its synthesis of the facts of science, philosophy in a sense becomes a critic of the sciences. *Divide et impera* is the motto of science, and the scientific specialist, finding an hypothesis suited to the explanation of the phenomena which he has examined, is under the continual temptation of making use of it as a measuring line for higher, or, indeed, for all orders of, existence. This is perhaps one of the gravest dangers of contemporary science, the analogous application of accepted principles from one order of existence to another. An important function of philosophy must be to examine such a principle or hypothesis, understand it, and indicate to what extent it affords an explanation of phenomena of another order, and wherein it fails. Philosophy is thus through its very criticism a synthesis of the sciences, but through a higher medium than the sciences themselves explicitly recognize.

As a working hypothesis in educational theory the doctrine of evolution has become indispensable. There is an ever-increasing body of evidence that it points in a direction along which truth lies; and the justification of any hypothesis is found in the existence of facts inexplicable without it. It was maintained above, however, that "its true significance can be realized only when the general doctrine is submitted to the interpretation put upon it by philosophy; in other words, when its results are brought into relation with the other elements of our experience." In attempting a statement of the philosophic form which the doctrine of evolution would take when made basal in a philosophy of education, the following considerations at least would have to be reckoned with: (*a*) that the real is one with actual experience, that it is intelligible and forms an internally coherent system, and that with the evolutionist's notion of

adaptation, according to which an individual purpose can be realized only through accommodation to certain definite conditions, is bound up a belief in the world as a systematic unity, and no mere chaos; (*b*) that, therefore, evolution is distinctly teleological in its outcome; (*c*) that the real or the absolute, since it is at least both intelligible and of significance for the realization of human purpose, is the living state of a being in whom is intelligence and consciousness of purpose; (*d*) that reality or the absolute, as immanent in all its manifestations, is not alike and equally present in all; (*a*) that fully to know the meaning of our individual experience would simply complete insight into the nature of reality as a whole; in other words, that complete knowledge of self and knowledge of reality are ultimately the same thing; (*f*) that, therefore, reality is spiritual, and that "the more that anything is spiritual, so much the more is it veritably real." It would appear, accordingly, that when the implications of evolution are indicated, they are seen to be at one with philosophic idealism in its conception of the world as a system of reason. To know the world is progressively to construe it in terms of intelligence.

A philosophy of education is founded on a theory of the proper conduct of life; and a rational theory of life must be based on an examination of the nature of man and his relation to the cosmos of which he forms a part; in other words, on *a conception of the nature of reality*. The answer which an individual gives to the question, What is the good for man? is ultimately determined by the view he takes of the general nature of reality. Nor is the educational end an independent conception. In human life the judgment of value is inextricably bound up with the judgment of fact. A philosophy of ethics or of education is influenced by our estimation of reality as truly as by our conception of mind. Our theory of education is ultimately one with our philosophy of life. It is difficult to imagine how the man who regards the ultimate reality as mere blind force can consistently view the process of education in exactly the same light as the man who thinks of the world-process as the living expression of a personal spirit, knowledge of whom and likeness to whom is conceived as man's supreme concern. It is only necessary to survey in retrospect the great epochs in history to realize how dif-

ferent conceptions of the nature of ultimate reality have been paralleled by ethical and educational ideals correspondingly diverse. The entire history of the religious, moral, and intellectual life of mankind bears witness to the organic connection between religious and moral practice, on the one hand, as between the philosophical, ethical, and educational theory, on the other.

In its attempts, therefore, to furnish a rational account of any process of *becoming*, which forms the subject-matter of the evolutionary method of study, idealism seeks to gain validity for the process by a threefold interpretation: (*a*) from the point of view of its metaphysical ground; (*b*) from the point of view of the relation of the objective world to experience; (*c*) from the point of view of the evolutionary process as fundamentally teleological.

What was said in the preceding paragraphs was put forward merely in the way of suggestions toward a working statement of the relation of a course in the principles of education to one in the philosophy of education. Just as the philosophic habit of thought is necessary to the complete appreciation of the achievement in any special line of enquiry, so a course in the philosophy of education should be the more complete realization of all that is implied in the college course in the principles of education.

As in philosophy, so in education particular solutions will perish while the problems live on. While it is to be acknowledged that the final test of any study must be its effect upon our action, the conduct it will inspire, the degree to which it keeps the passion for humanity to the fore, it must be as freely acknowledged that the more valuable results of a theoretic study of education are not immediate; they are nevertheless quite as inevitable and far-reaching. With the increasing complexity of the spiritual life of man, the problem of education likewise becomes more complex. In this very fact the need of a *theoretic* study of its possibility and its significance becomes more manifest. Algernon Sidney held that there were but two things of vital importance — religion and politics. In its best sense, education is an integral part of both. In some future day education may take the ancient and honorable place once held by politics in the minds and hearts of citizens. To achieve and retain that position, the serious and reflective study of the

problem of education—the study, which, according to Mr. Spencer, involves all other studies, and the study in which the education of everyone should culminate — in its organic unity and continuity with the other great movements of the human spirit, must take the place of mere kindliness of heart, or the intellectual inertia which mistakes enthusiasm for insight and premature opinion for reasoned experience.

DISCUSSION

FREDERICK E. BOLTON, head of Department of Education, State University of Iowa: In administering a college course in the principles of education, the great desideratum is to try to formulate a body of knowledge which will give undergraduate students an idea of the meaning of education and its problems, a knowledge of its processes, and especially the laws underlying all rational procedure. In so far as possible, it is desirable to present material which in a certain sense will be practical. Inasmuch as the majority of undergraduates who study education in a college department intend to go into the practical work of teaching, it is important to fortify them, as well as possible in the brief time which they devote to the subject, concerning the best means of securing definite results in education. The majority are not so much interested in the science or the philosophy of education as they are in its practical problems. All courses in education should seek to deal with fundamental principles, and not dole out dogmatic statements of practical means and devices; but at the same time no principles should be considered with which the student cannot see some relation to the educative processes. They are not primarily concerned with the place of education among the sciences, nor with ontological and teleological meanings of education or of its laws. As I view it, the course in principles of education should be on a par with the course in principles of physics, or in principles of biology, principles of psychology, principles of political science, etc. Now, a course in the principles of any of these subjects attempts to set forth the main problems with which the science deals. Elementary courses attempt to select those principles which have frequent application in everyday life. The course in the principles of physics deals with elementary notions of matter, motion and force, and everyday illustrations and problems are sought. It would seem to me that in a similar manner the college course in principles of education should seek elementary principles which will better enable the student to accomplish the purpose of education, namely to produce modifications in individuals and in society in harmony with the ideals and ends of education. Education is a process of adjusting individuals to their environment, natural and accidental, and the environment which is created through ideals held by society and by individuals themselves. All education has to do with the development of the individual in accordance with his poten-

tialities and the ideals of education which are set up. It is, if we may so term it, a practical science, an applied science, the same as engineering is an applied science. Engineering does not deal with ultimate theories of matter, force, and motion except as they are important in considering practical ends to be secured through the application of forces.

I believe that I am in thorough accord with Dr. MacVannel as to what should be included in the ideal training of the teacher. From the outline I gather that nearly all of this training should be incorporated in the course in the principles of education. On the question of the distribution of the work I should differ, if I am correct in my interpretation of the outline. It is quite possible that a complete exposition of the topics mentioned in the outline would make a revision of my interpretation necessary. Much depends upon the proportionate place given to the several topics. In a course in the principles of education no complete treatment could certainly be given of all the topics mentioned.

A course in the principles of education should seek to include the foundations rather than to encompass all knowledge about education. It is rather an *Einleitung* than an *Encyklopädie*. Professor MacVannel's outline appears to me encyclopædic. The complete training of the ideal teacher ought to include all that he indicates and even more. I believe I am in full agreement with the outline of topics except that the course in the principles must be limited. Professor MacVannel apparently includes child-study, educational psychology, methods of instruction, the course of study, educational organization and administration, the various studies as instruments of education, etc. In fact, the only subjects of education not included are the history of education and school law. He would also undoubtedly draw extensively upon the history of education in his search for educational principles and for examples to illustrate them.

Although a complete and logical treatise on the principles of education might include a consideration of "the course of study and the method of instruction," "the making of a course of study," "the problem of the arrangement" of the course of study, "the various studies as instruments of experience," "the organization and administration of education," etc., it is questionable, from a practical point of view, whether they should be given consideration in the undergraduate course. Mere passing notice would, at any rate, seem sufficient. Each topic of the scope of the foregoing is sufficient to form a course in itself, and the introductory course should do no more than define their relation to the general problem. In the principles of psychology the fields of abnormal psychology, comparative psychology, child psychology, adolescent psychology, etc., are defined and drawn upon for illustration, yet no separate chapters are devoted to them. In departments of political economy there are usually elemental courses designed as an introduction to the leading principles of economic science, but there are special courses in currency and banking, public finance, taxation, transportation, distribution of wealth, etc.

Similarly in the college course in the principles of education, the work should

be concentrated upon the fundamentals designed to introduce the student to the many special problems. The course of study, and the organization and administration of education, should be regarded as accessory rather than as fundamental. Mankind was being educated in a fundamental sense of the term æons before schools were organized, and before special subjects were arranged or methods thought of in connection with them. The laws underlying processes of development and modification are what should occupy the attention of the student in this elemental survey. A study of the special means and agencies of education and forms of social organization should be given in other courses by special names. Secondary education, the kindergarten, administration and supervision, methods in special subjects, etc, each deserves attention as a distinct and separate course.

Although in the main the topics indicated are such as should find place in courses in a department of education, yet certain sections are purely philosophical in their nature. Of this character, mention may be made of Section VII on "The Nature of Experience." This is a problem of epistemology, and Professor MacVannel has not hesitated to go into a discussion of empiricism and rationalism. This I believe to belong to the domain of philosophy as such. Certain other sections, while less strikingly belonging to philosophy, are largely concerned with its specific problems. Of such a character Section VIII might be instanced. This section deals with the development of experience. He discusses such points as "experience as an organic unity," "distinction between growth and development of experience or of mental life," "increase in the content of experience," "increasing complexity of mental processes," and "increasing facility and power among the various mental processes," and the "increase in the organic unity and solidarity of experience," "experience as a teleological system," "experience as problematic," "the emergence of sensation, idea, thought, attention," etc. All of these belong either to psychology or to philosophy. Of course, every thoroughly trained teacher ought to have mastered these topics, but they are beyond the comprehension of the ordinary undergraduate. They would occupy an amount of time which could not be afforded them.

According to Professor MacVannel's definition of the *philosophy* of education, there is little place for this subject in an undergraduate collegiate course in education. To be sure, every instructor ought to have come to philosophical ideas of education, but the ordinary undergraduate student is not mature enough to grasp their abstractions. Even if they were sufficiently mature, many have not studied philosophy as such, which should be a prerequisite. Desirable as it may be, it would seem to me impossible to attain.

Personally it would not seem to be a serious departure from strict terminology to denominate the course in principles as a course in the philosophy of education. For a long time the term "natural philosophy" was in good repute. It signified not necessarily a metaphysical consideration, but the study of physical phenomena and their laws. Likewise we employ the term "political philosophy," without feeling restricted to the consideration of the nature of the state, but feel free to

discuss phenomena, laws, and principles. Similarly, under "philosophy of education" may we not include a study of the meaning of education and the body of facts, laws, and principles which will enable us best to attain the most intelligent and far-reaching results in education?

With the limited time at my command, I hesitate to suggest the scope of work and the topics which I regard as essential in an undergraduate collegiate course in the principles of education. However, hoping that it will be borne in mind that what is given is merely suggestive, I shall make the attempt. It will be seen that many of the topics are included in Professor MacVannel's scheme. What I suggest indicates in a general way the course which I have been giving for some years in this subject. The first third of the year in the three-hour course is devoted to the biological aspects of education. In this section there is an attempt first to enlarge the notion of education, aiming to have it regarded as practically coincident with life and experience. Of course, there is the ideal side toward which individuals will strive, but the attempt is made to impress the student with the fact that every experience leaves its ineffaceable effect upon all organisms. In order to convey this idea, we begin with a discussion of the effects of experience upon simple animal and plant life, and the general modifications produced in the adjustment of such life to surroundings. Some familiar, non-technical facts in the evolution of plant and animal life are considered in their relation to the question of adaptation and adjustment. Due notice is taken of the facts of adjustment as manifested in such illustrations as the change of the eyes of cave animals, gradual modifications of plant and animal life, the change of animals from sea life to land life, some of the retrogressions, etc. A general study of the gradual evolution of sense-organs and the nervous system is made, because these illustrate in an excellent way the gradual modifications produced by experience in the race. After this general survey, the subject of recapitulation is considered by means of lectures, and through discussion of such chapters as Drummond's "The Ascent of the Body," "The Scaffolding Left in the Body," "The Arrest of the Body," "The Dawn of Mind," and "The Evolution of Language." These discussions naturally lead to a consideration of the culture-epochs theory, the lengthening period of human infancy, and the importance of infancy in education. This in turn leads to a brief consideration of the periods of childnood, adolescence, and maturity, largely from a biological point of view. These are followed by a discussion of such topics as instinct, heredity, from fundamental to accessory in growth, the brain as an organ of mind, some of the facts of psycho-physic correlation, and the reciprocal influence of mind and body upon each other. Before leaving this general field, thorough and designedly practical discussions of the importance of physical development and culture for education in general and for mental development, fatigue, habit, physical and mental hygiene, and play, are considered.

The second section of the year is occupied with what some authors term educational psychology, and others term the psychological aspects of education. In this section the first topic considered is that of memory. It naturally grows

out of the biological discussion of instinct, heredity, etc. Included in the subject of memory is that of association. Following this, we discuss imagination, imitation, training of the senses, apperception, formal discipline, feeling, volition, motor training, induction, and correlation. Periods of mental development and the specific topic of childhood and adolescence receive definite consideration, though more exhaustive treatment is reserved for a distinct course in child-study. The genetic point of view is emphasized throughout.

Concerning the last section of the work I speak with still more diffidence. Just as sociology has not become a well-organized science by itself, so the course in social aspects of e'ucation has not thus far been well defined. I have been searching for some years for a working outline of topics for this section. Thus far I have not succeeded to my entire satisfaction. We group our work around such books as Dutton's *Social Phases of Education*, Butler's *The Meaning of Education*, Spencer's *Education*, Hanus' *Educational Aims and Educational Values*, Dewey's *The School and Society*, Henderson's *Education and the Larger Life*, McCunn's *The Making of Character*, etc.

Throughout, an attempt is made to make the work as concrete as possible, and to show its relation to matters pertaining to the schoolroom, the home, and to the everyday conduct of the students themselves. Each topic is treated with considerable thoroughness and detail. No endeavor is made to secure an absolutely systematic and ultra-logical system. The charge of being unsystematic and incomplete would not be resented. There is no desire for a system. As in the elementary stages of any subject, the first requisite is a body of fundamental facts. There is time enough later to evolve an all-inclusive and all-exclusive system. I am not aware that even "the doctors" have yet fully settled this question. The psychological order is the one sought. What is intelligible, full of living interest and of largest probable importance in the life and work of the student-teacher are the criteria applied in the selection of materials. The student verdict is given much weight in deciding.

The experience of the last five years gives reasonable assurance that a course such as suggested has a definite place as undergraduate work in college. It has proved of apparently increasing importance in the State University of Iowa. Starting with twelve students in this course in 1900, the numbers have increased each year until now there are seventy taking the work. This course has drawn more students than those in methodology, high-school problems, or the history of education, and these latter have been taught by the same instructional force as the principles of education. The attitude of the students themselves leads me to feel that the facts which are dealt with are such as can be understood by the average juniors and seniors, and such as to enlist their interest in the work of education. We feel that they are stimulated to look at their work as teachers and at child-life in an entirely new way. Their work is not to be as mere distributors of arithmetic or geography, but as promoters of the development of human beings freighted down with an ancient past, and who must *grow* toward ideals if they ever attain them. The testimony of graduates after entering the

field of teaching is also encouraging, and leads us to feel that the students themselves consider that they have laid hold of some guiding principles. Some radical changes in the way of elimination and extension have been made in the light of students' reactions toward various phases of the work. An increasing number who do not expect to become teachers also take the course. They seem to consider it as liberalizing and cultural as any branch of university instruction. They find in it an interpretation of much that has been meaningless in their own lives, in school activities, and in the life of society.

DR. H. H. HORNE, Professor of Philosophy in Dartmouth College: These comments are based upon a careful reading of the paper in the typewritten outline. They reveal probably the bias of the writer more than the nature of the subject about which Dr. MacVannel is writing, and so they are themselves more subject to criticism than the original before me. There are three kinds of comments I should like to make upon the whole paper, viz., the strong points in general, the weak points in general, and certain weak points in particular.

Upon the strong points in general I will not pause a time proportionate to their desert. I pause at all only that I may not seem unmindful of them in the critical part that is to follow. My excuse for pausing but briefly upon them is that no eulogy of mine could make them more effective than they appear in the body of the paper. Among these strong points in general are the deeply philosophical tone pervading the whole, the earnest spirit of reflective inquiry concerning educational principles, the emphasis laid upon a fundamental unity in all educational experience, a careful analysis of the elements of variety that enter into this unitary whole, and the recognition everywhere of the dynamic and functional as against the static and isolated. These merits, in my view, incomparably outweigh any demerits to which I shall now refer at greater length.

As to the weak points in general, it simply must be observed that "the defects of the qualities" of the paper are in evidence. There is a certain vagueness and abstractness about the paper as a whole; good theory, no doubt, one may feel, but what the bearing is does not always appear; the principles are theoretical rather than practical; the ideas are often not stated in complete sentences, particularly in the latter part of the paper (e. g. Section XII p. 105); and the definitions are not obviously clear (e. g. of "method" on p. 35, viz.: "Method or the form of personal realization and penetration of the intellectual order of the school"); the first 80 per cent. of the paper, or the first two parts, might very well be called other things than the principles of education, such as, the philosophy of society, the philosophy of evolution, the philosophy of human experience, or even the philosophy of education. The sum of the criticism at this point is that the author has insisted that thinking should control as well as interpret experience, but his own educational thinking here does not control educational experience; in short, the practical bearings are not shown.

As to certain weak points in particular: "The science of education aims at securing the method by which the educational process may be increasingly con-

trolled" (p. 81). The definition of the science of education is exclusively practical, and as such is inconsistent with the definition of science as including "knowledge" given at the bottom of p. 80.

"The twofold aspect of education as a science" (p. 80). In so far as education is of the body, other aspects than the "psychological" and "sociological" would come in.

The definition of idealism (p. 82) is in exclusively teleological terms, whereas the ontological element should be included, as at the top of p. 84.

To state, that the goal of the world is "the perfecting of the life of man" (p. 84) perhaps elevates man more than his position in the cosmos warrants. It is what Professor Royce calls "atrocious Philistinism". Man doubtless has a large place in the goal, but perhaps is not the goal itself.

The heading and subheadings are not logical on p. 84, where III and (3) are identical.

The use of the word "ontological" in the parentheses on p. 89 as an evident synonym for "dualistic" is not happy.

So the use of the word "psychological" in "Play is fundamentally a psychological attitude," at the middle of p. 91 is, not the best perhaps.

On pp. 92 the terms "genetic or functional" seem to be used synonymously, which is very misleading.

On p. 95 the definition of "growth" is hardly to be distinguished from (*a*) under the account of "*development*".

Concerning the use of the word "experience," on p. 95 *et passim*, it may be permitted to ask for a definition of experience, and an account of whose the experience as a totality is.

"A self-active principle, creative in the objects it knows and the ends it chooses" (p. 97) looks like the "subjective idealism" which the author has rejected.

The distinction between the sciences and the humanities, on p. 102, or that between control and appreciation, leads to the inquiry whether there is not an element of control in the humanities and of appreciation in the sciences, as Professor DeGarmo holds.

I cannot conclude without referring to the attitude of Dr. MacVannel toward the self and its environment, "since they are the terminal aspects of one movement" (p. 90). This is the view I have been accustomed to present myself, but since the work of James, Dewey, Woodbridge, Schiller, Bawden, and the whole noble company of pragmatists, I suppose we are no longer justified in doing so without at least considering whether the consciousness is not a mid-term of relation between beings, instead of an end-term.

And as a last paragraph, since *dynamism* is such a thorough presupposition of the whole discussion, I cannot but ask for a defense of the reality of time. These last paragraphs emphasize the feeling I have that the whole paper is too theoretically philosophical for a college course in the principles of education. What college men want in a course in principles of education is first sound practice, and then only enough theory to understand it.

JOHN A. BERGSTRÖM, Professor of Education, Indiana University: At the time of the preparation of this discussion only Part II of Professor MacVannel's paper, in outline, was ready for distribution. This deals with the "College Course in the Principles of Education."

Professor MacVannel does not set forth the general principles which should be observed in the formation of such a course; he presents instead a system of topics, which he believes should be taken up in the classroom in dealing with the subject, and adds suggestions as to the mode of treatment. For one who wishes, as does the present writer, to consider the general policy involved, it is therefore necessary to infer from the different topics and suggestions of the document what this policy may be; in other words, to treat the paper as if it were an historical source, though one cannot expect in this case the historian's usual immunity from correction by the author.

One notes, in the first place, that the paper is written by a philosopher more Platonic than Aristotelian in his views and methods. Evolution and idealism are regarded as the foundations of the theory of education, but idealism is the viewpoint. The truth of the evolutionary series is to be understood in the light of its highest, not its lowest, terms. "Mind is the realization of matter;" and "the world is in essence spiritual and its goal the perfecting of the life of man."

In the next place, there is an almost Hegelian intolerance of the lack of relation of certain opposites, which are conceived of as merely extremes of the same set of connected facts and are brought into harmony from some higher point of view. Thus: "Mind and matter, soul and body, are terminal aspects of a unitary, living, spiritual experience," in which the lower serves or should be made to serve the higher. "Just as for the theory of knowledge subject and object are but terminal aspects of a unitary process, so the mind of the individual, with its attitudes, interests, instincts, on the one side, and the studies, on the other, are fundamentally the terminal aspects or limits of a unitary, educative experience." "The individual is a functional element in a larger functional whole," namely: society; and "the individual and society are regarded, not as two separate modes of being, but rather as two phases of one reality, distinctions of functions, of modes of operation within a unity." Then, too, "subject-matter and method are but differentiated aspects of a unitary experience."

These statements, together with other analogous considerations, serve to call needed attention to the fact of inner relationship of each pair of correlates, but by no means make the scientific study of the details and effective character of this relationship superfluous.

In the third place, one notes that Professor MacVannel places a very high value on the philosophic work of systematization. "The theory of education should set forth not a set of educational categories or principles, independent or isolated one from another, but an interrelated system;" "the philosophy of education is the theory of the relations of education to other sciences, and to the known world in general."

When one reflects that it is only by the proper distribution in thought of the different factors in the field of education that their relative value is apparent, that one may thus be saved both from fads and from anachronisms, that the system stimulates to mental effort, especially in the direction of its own elaboration, and that it gives tone, force, and singleness of purpose, there are evidently urgent reasons for emphasizing it. Yet the emphasis implied, not simply in these statements but in others throughout the paper, is so great that it might lead to the obscuring of certain other valuable modes of thought. Such great values can be ascribed to a system only when it has grown up in connection with years of experience and of scientific study of educational facts. Should the systematization of educational concepts, particularly such as are developed from the viewpoint of philosophy, be attempted at an early stage — unless it be in simple language and as a mere preface — they may make little more than a verbal series, justifying Occam's theory of the *flatus vocis*. The comprehension of the topics may be so vague and lacking in vitality that, while the student can, for example, locate such a subject as method in the system, and know that it is "fundamentally the mode of the individual's behavior in the realization of some phase of his environment," he may be so absorbed and satisfied with its location that he fails to work painstakingly at its different parts till theory and practice combine to make him expert in its use.

Besides, many practical educational problems, which the aim Professor MacVannel assigns to the science of education, as that of "securing the method by which the educational process may be increasingly controlled," would authorize us to keep in mind, are of a character to demand for solution a knowledge of current practice and a few practical rules; and still others require a high degree of technical knowledge of certain topics, as in the case of school hygiene. It is not often that the practitioner, if he knows a system, has time to consult it in all its parts, and perhaps still rarer that he does so. The possession of a large number of ready but unsystematized solutions for the multitude of practical problems that arise is certainly a valuable asset. However, to estimate the value of the system fairly, one must bear in mind that it may exert a slow but definite influence, which may extend even to these details; yet the number of educators who in practice have acted contrary to their general theories is quite alarming to one who may wish to pin his faith to systems. Should attention to the general system be so preponderant, as in fact it sometimes is, that the special principles of certain departments in which the student wishes to labor are not mastered with sufficient enthusiasm or technical skill, the results will not be the best.

In most subjects, in recent years, effort has been mainly directed, not toward systematization, but toward the investigation of special topics — a plan which, in the present state of development of the subjects, has been at least partly justified by results. Though the educational field is large and inviting for work of this kind, less has been done than in many another. A department with a large field of important facts is like a country with vast natural resources: it is sure to have a great future, if it develops them. The present revival of interest in philosophy,

of which we have notable instances even among men concerned with natural science, suggests, however, that, even if comparative, inductive, specialized studies must be the daily task, systematization may also from time to time be profitable.

We turn now to another aspect of Professor MacVannel's paper. The conceptions with which he maps out the pedagogical field are of the most recent. Not simply do we find a synthesis of evolution and idealism placed at the foundation of the structure, but many applicable concepts from functional and genetic psychology, sociology, and institutional study are introduced. All mental processes are said to be merely aspects of inner adaptations to outer conditions, the higher serving with increasing efficiency the ends of action. Science is a method for the control of experience. "Civilization represents the tools of the mind invented by man in the course of his experience for the registration, organization, control, and perpetuation of his experience." "The possibility of individual development lies in his increasing participation in the social consciousness and in social activities." "Education is therefore essentially a process of social interaction between the two factors of the experience process, society and the individual;" and "dynamic adjustment expresses sufficiently well the essential nature of the educational process." "All phases of psychical activity may be grouped about two fundamental types, habits and accommodations."

Much of the customary educational phraseology is either set aside for, or supplemented by, philosophical terms. Thus, the formation of a course is regarded as a double problem of selection and arrangement, or of differentiation and integration, of subjects. This predominance of the philosophic temper leads also to what seems to be an undue emphasis for educational purposes of certain philosophical aspects of the terms employed. Thus, in the discussion of the concept "self," more attention appears to be given to its unifying function, its relation to self-consciousness, and the not-self, than to the problem of its proper training and development.

The scenery in Professor MacVannel's sketch of education is so new, and the strokes so large and detail-obliterating, that one might well question if any of the old pedagogical heroes who have dealt with the subject more or less directly would at first imagine, if awakened, that they had in view familiar territory. Even so late a writer as Bain would certainly wonder how things could change so much in the short period of thirty years.

It is doubtless true that one of the chief ingredients of the great educational classics has been a better and more accurate representation in words of the highest ideals and forms of culture of the particular time in which they were written, as Spencer represents some aspects of evolutionary pedagogy, and Vives that of the Renaissance. The task of bringing to bear upon educational problems the best suggestions of present thought is certainly a great and indispensable one, but there is a prerequisite to its successful execution by the student, namely, the comparative, historical study of solutions of the same problems previously attempted. This is not so merely because it is the custom of present-day scholarship to require such a treatment of its topics, or because the contemporary

student has on all sides been trained in evolutionary modes of thought so that he learns better in this way, but because the scholar and student alike amass instances in the study of the history of educational ideals, methods, and conditions that enable them to build up genuine concepts on the basis of fact and to conceive plans of work, the precise value of which can to a considerable degree of accuracy be estimated from past experience. Moreover, past ideals and methods have usually not wholly disappeared; they persist either in their original form in more conservative institutions; or they have been somewhat transformed, yet not so much so but that there are present-day homologues. If the principles of education are to be studied so as to give an "increasing control" over educational affairs, then the study of educational principles incorporated in the ideals and work of men or institutions at different times, whose evolution and efficiency may to a considerable extent be ascertained, should have a very great value. In this way the chief stages in the evolution and the morphology of the different concepts and principles may best be ascertained. This aspect of the matter may be dealt with either independently in a course in the principles of education, or in connection with the history of education.

Some believe, it is true, that in education as well as in philosophy the introduction of the historical method has destroyed creative speculation; that by it the scholar has taken the place of the system-making genius. This, if true, is not wholly a loss, and at any rate may be regarded as merely a temporary phase. Time is required for the mastery of the new point of view, and theories, and even systems, will surely be constructed in the future, more true and effective because of the corrective foundation given by the period of historical scholarship.

For the solution of the problem as to when and how the principles of education should be taught in a college course, it will be of advantage to consider their mode of production, and the corresponding grades of validity and usefulness. The actual concepts and principles possessed by the same person of different things, and by different persons of the same thing, vary enormously, and many classes and sub-classes could doubtless be made of them. These would range in grade from the more or less valid practical conclusions drawn by teachers from their own experience to the concepts elaborated by the most painstaking scientific and philosophical study of the most gifted minds. A division into three classes, somewhat like the familiar Hegelian or Platonic, will serve the present purpose. In the first are placed the usually ill-defined, often contradictory, but tenaciously held and applied, customary educational views and precepts, partly derived from experience and partly from desultory reading and hearsay. In the second are placed those which have developed out of, but beyond, those just mentioned by some years of laborious, comparative study, so that each concept and principle has as its foundation a sufficiently large and typical group of instances to make it clear and adequate. Moreover, they have been formed by personal work by the student, in accordance with the best available methods, so that he has both ability to continue their elaboration, and the disposition and skill to apply them to practical affairs. The training secured

is sufficient for effective scientific or practical work in one or more of the different departments of education.

By continuing the application of the historical and inductive, or scientific, method something more may be effected, and a third and higher grade of principle produced. For one thing, the concepts and principles of the different aspects of education, historical, psychological, and practical, can be more and more elaborated and perfected; but the effort may also be made to develop more comprehensive views, not independently of, but on the basis of, the scientific work so far done, so that the different parts of educational work may be adequately adjusted with regard to other parts, and the whole of education with regard to the social service it is to perform. This will result in what may be termed educational statesmanship, which will know what degree of emphasis to place upon different parts of pedagogical study, or what should be added or omitted; and, in the practical field, what should be undertaken both from the point of view of inner work and from that of outward propaganda to make education fulfill its function as nearly completely as possible. In general, university courses can give students such a training that they will be well advanced in the formation of the principles of the second type, and will have made an important beginning of those of the third; but both types of principles, especially the third, will need subsequent study and the test of experience.

In the consideration of the problem, a difficulty is introduced by the fact that as far as the mental process is concerned, concepts and principles have a great range; and the most trival as well as the most profound may thus equally be called by the same name. Moreover, the studies of the highest questions may be introduced with persons of such immaturity, or lack of special preparation for the work, that the results at best may not be so good as those of the first-class, and, in fact, may be so nearly merely verbal, confused, and ineffective that they can hardly be called principles at all, at least when measured by the standard of efficiency. In the sense that Comenius would introduce "metaphysics" in the "Maternal School," the principles of education might well be begun in the kindergarten. In the sense that Plato uses the term "philosophy" and would have it studied, after a course in traditional subjects and science, at from thirty to thirty-five, courses in college and university can only give an extensive preparation in the science of education, with some beginning of its philosophy.

There is still another difficulty: while definite and efficient conceptions of the highest principles cannot be obtained except through prolonged study, nevertheless there may be dim anticipations years before, induced by reading, disscussion, and personal meditation. Such anticipations might by the untrained be easily mistaken for genuine science and philosophy.

The topics proposed by Professor MacVannel are such as would in the main fall into the third group; and it is very important to consider by what stages of study and by what methods they are to be mastered.

The entire course of pedagogical study may be said to have as its special purpose the building up of adequate concepts and principles with a view to

scientific and practical efficiency; and the essential thing, in the first place, is not so much a course bearing the title "Principles of Education," as courses in which there may be a study by scientific methods of the data that make them possible. No department representing any great branch of knowledge could teach its principles in any other way, unless it meant by principles, not the fundamental and elaborated concepts of science, but merely its initial steps.

The relation of such an introductory course of initial steps in the department of education to a course or courses for the teaching of the principles of education is a very important problem in department pedagogy. The charact r of the course will have much to do with the interest and progress of the student. As the student may enter the department with many traditional views, many personal problems and many but vague notions of modern education, he has some foundation for his work; but he lacks technical psychological and pedagogical terms, and especially such methods of work and points of view as a systematic study of what he knows and can easily assimilate will give him. An introductory course of from three to five periods a week for a year would prove of service to him. It would consist of a simple introductory survey of the chief characteristics and terminology of modern education, with the main historical outlines, and within range of the student's experience, interest, and personal use. There will also be some discussion of ideals of education, of methods of study and teaching, and of personal and school hygiene, and of educational psychology and practial ethics. Many of the topics listed in Professor MacVannel's paper would receive a preliminary treatment.

This will, to be sure, be a study of the "Principles of Education," and in the old days might possibly have been mistaken for a substantial course in the subject. It is, of course, merely introductory, and should rather be given the name "Introduction to the Study of Education" than "Principles of Education," which would then be reserved for principles of a greater degree of elaboration. However, by this means a beginning of the study of the principles of education may be made. This should be continued in the second year for about three periods a week by the study of the general history of education, chiefly from sources; and in the third by a comparative study of contemporary schools and school systems. In this study the principles of education will be taught in their historical setting and evolution, which will aid much in making them practical. These two courses shonld be studied, not simply by a review of the works of educational reformers, nor merely even by the study of educational facts in their relation to social, economic, and institutional conditions, which would, to be sure, do much to make them scientifically comprehensible, but as a study in educational dynamics to bring out the effective practical value, personal and social, of the different elements of culture.

Work in educational psychology should also be continued. While the study of the character of mental processes at different stages, the order of their development, and social interactions, is more particularly the end in view, the starting-point for a psychollogical study, alike for the allienist, the student

of children, or the student of animal intelligence, is normal adult psychology, not so much in its intricate technical analysis as in its familiar, personal, and practical aspects. Training in the psychological or pedagogical laboratory is in the same way a necessary technical preparation for investigations in genetic psychology. Possibly this might occupy the equivalent of three hours a week for a couple of years, running parallel with the two years devoted to historical and comparative pedagogy.

We may suppose that during these three years some collateral courses will have been pursued by the student; that something in biology and paleontology may have been done to give an initial grasp of evolution in those fields, and also something in sociology, philosophy, and literature. In addition, he may have begun the reading of French and German educational literature, which, aside from the facts gained, will, by reason of differing and contrasting terminology, help to free him from bondage to verbal suggestion, and so aid in the formation of concepts.

The student has the foundation for the study, observation, and practice of various lines of educational work as well as for further scientific training. But by the very nature of his work hitherto, he has dealt with separate aspects of education; for the highest efficiency either in the science of the subject or its practice, he must learn to organize his knowledge better, and bring what is pertinent from the several different departments of the subject to bear in the solution of the problems that come up. An advanced course in the principles and philosophy of education, conducted either by lecture or by recitation methods, might be an aid in the matter. If a course bearing this title is offered at all, it might be at this point. It should not so much be classificatory as designed to make knowledge already largely acquired convertible into practice. The most efficient means to this end will probably be the preparation of work in the seminar and the investigation necessary for the final thesis. The relation of philosophical, sociological and psychological concepts to education, with which Professor MacVannel's paper so largely deals, would be among the best topics for the seminar, each, perhaps, for a year's work. We may imagine that the student will spend, according to his purpose, one to three or four years in these advanced lecture courses and seminary exercises, in observation and practice, and in his investigation.

In the consideration of this problem of the teaching of the concepts and principles of education, attention has been given especially to factors which promote their development and efficiency, that is, to the collection of data, the method and duration of study, and the influence of observation and practice; all of which determine, not only the adequacy of the concept as a means to action, but also its future development and usefulness. From this point of view, the entire course of educational training is involved. In general, I have endeavored to represent in this discussion what I conceive to be the scientific study of the principles of education as contrasted with a method too purely philosophic. This scientific point of view is at the same time that in which I believe.

THE EDUCATIONAL VALUE OF COMMERCIAL COURSES IN HIGH SCHOOLS[1]

CHEESMAN A. HERRICK
Director of School of Commerce, Central High School, Philadelphia

The topic on which you have asked me to speak takes for granted the practical worth of commercial studies, and it also concedes by implication a demand of our communities for this form of education. The question I am to discuss is: What as school men shall be our attitude toward commercial education in high schools? Shall we pity the students in commercial courses, and silently wish a thing recently expressed to me by an unsympathetic teacher in a commercial course: "I wish that in some way I might take hold of these students and just lift them over into some other department of the school"? As teachers and principals, are we to deal with the different departments of our schools after the manner of a principal of one of the largest high schools of the Middle West, who said a few years ago that he had no students in his commercial course who could be persuaded to go elsewhere? In considering the question of values of a high-school education, we may also take another fact for granted, namely, that to get an educational result from high-school studies, we must first get the students into the high school, so that our consideration of a high-school education may well begin after the manner of the familiar recipe for hare pie.

I shall in this paper maintain the thesis that, for a large proportion of those in attendance on secondary schools, an educational result is possible from commercial studies equal with, or superior to, results which can be obtained by any other grouping of studies in these schools. In considering this statement it should be borne in mind that there are certain subjects which may be termed fundamental in all secondary education. As such I should include elementary algebra, and practical and cultural work in English. It is possible

[1]Address delivered before the Massachusetts State Teachers Association, October 27, 1905.

that plane geometry and certain courses in history might also well be added as universal subjects. The algebra should be included because of the power it gives in generalization, and the geometry might be included as discipline of the reasoning faculties. The English would be accepted without question, and I feel that a case can be made for the cultural and practical worth of history.[1] It is my belief that with the subjects here mentioned, and what are familiarly termed commercial branches, it is possible to secure a disciplinary education of the best sort, and furnish an equipment for life at the same time.

It would be futile to attempt an avoidance of the issue in dealing with this topic; I accept the issue, expressed as follows by a prominent school official in Massachusetts: "All courses designed primarily to meet vocational ends are likely to be narrow and superficial; they are singularly dangerous, because their superficiality is so skilfully concealed." Such a statement makes a sharp line of division between vocational education and higher education; but, pray, may not vocational education be the highest and truest education? The highest education is that which fits its recipient for the highest service, to become the most useful member of the community, and the commercial courses in high schools answer, I believe, admirably to these requirements. President Pritchett has set the high ideal that education is to do four things: to reach lofty moral purpose; to give a sympathetic and intelligent understanding of men; to lead to clear thinking; and to give a capacity for thorough work. No education can be considered high, or even adequate, which does not accomplish these ends, and it is my firm conviction that commercial education, to its constituency and in its place, admirably meets these requirements.

The curse of our present education is the belief that a given amount of knowledge of a peculiar sort makes one learned. We have largely disregarded an older and more correct notion that education is power, and were Abraham Lincoln, for example, to appear now, as in his own time, he would be branded as an ignoramus; Shakespeare could scarcely claim respectability at the hands of some college-entrance committees and boards. Please contrast with our

[1] Herrick, "History in a Commercial High School," *N. E. A. Proceedings*, 1903.

standards Greek education, which produced men of the highest intellectual power—men, some students believe, intellectually as superior to the European or American of the present as the European and American are superior to the African negro.[1] Yet Greek education was of marvelous simplicity. The Greeks did not study a foreign language; they had almost nothing of what is termed science, and were limited to reasoning on a few fundamental phenomena of their own life. We have in the present too much of the quantitative theory of education, and our schools spend their time in dispensing knowledge that is of no use, which becomes to the one who gets it mere lumber. Is it strange, I ask, when students are stuffed with a certain amount of this and of that, with no other end except to be stuffed, that knowledge should soon go through their minds as water goes through a sieve or air through a screen? No doubt we have seen Professor Baker's impeachment of our present education in a recent article on the helplessness of the modern undergraduate.[2] In this connection, let me say that one can be but touched with the lament of Helen Keller, that after she had begun to be educated by our present methods she no longer had time to think.

In a discussion of this topic we get to the heart of the formal theory of education; to illustrate my meaning I may take the case of an Eton schoolboy who wrote on the door of a Greek classroom "The Road to Nowhere." When the teacher came, he let this motto stand, and added, "Nevertheless a Good Road to Travel for Exercise;" but it is my contention that a road to be traveled for exercise need not be a road to nowhere; and that discipline, in the best sense of the word, is possible from the use of subject-matter which, after its use in school, may serve some practical ends. A pioneer in the wool industry at Bradford, England, was ordered by his physician to take vigorous exercise with dumb-bells. After considering the matter, he asked to be permitted to substitute manual labor in his factory, and for a part of each day he went into the factory and packed and lifted boxes as a common laborer, and thus accomplished the end which the physician sought to reach by formal exercise. My educational doctrine is much like that of this practical man who did not believe in

[1] Francis Galton, *Hereditary Genius*, p. 342.

[2] *Educational Review*, September, 1905.

doing work which did not bring something in. In his book, *The Voice of the Scholar*, President Jordan has an answer to the question: What knowledge is of most worth? It is clear, he says, that the most valuable knowledge is that which can be wrought directly in the fabric of our lives, and that discipline is most valuable which will best serve us in our own individualities.[1]

It seems to me that the formal-training adherents made two errors: (1) they denied that good discipline could be secured from practical subjects; and (2) they held that purely disciplinary subjects developed the necessary powers which could be applied to all situations of life. Results already shown are the best answers to these contentions. Discipline, broad intelligence in the best sense of the word, has been secured from practical studies in agriculture, engineering and technology, manual training, and more recently in commerce. Facts or principles that have utility are not thereby invalidated from serving as furnishings in a mental gymnasium. While interest is increased from the practical aspects of data, this in no sense prevents such material from serving the ends of training. An alumnus of Brown, now professor in the University of California, in a recent public address indicates a change toward this whole matter of practical education; he tells us with what disdain he and his fellow-students of the classics looked on those "less gifted, less fortunate, or misguided" individuals who did not study Greek, philosophy, and the like. But in fifteen years the practical studies have so well demonstrated their worth that this man is led to say: "Such courses have not only established their utility, but they have won a general recognition for dignity, and the fortunate possessor of such training is regarded as quite as distinguished as he whose head is full of Greek or the more difficult Sanskrit."[2]

On the other hand, the development of particular powers by formal-training methods is no guarantee that such powers will be brought to bear in practical situations. Fine scholars, in the formal-training sense of the word, are often lamentable failures in meeting the demands of life. This has been a source of wonder, and it is to be explained by the fact that mind may be trained only to particu-

[1] P. 71.

[2] Carl C. Plehn, *Education for Commerce as a Profession*, p. 149.

lar ends. To make sure of the use of powers, the training of them should be as nearly as possible in the fields of effort where they are to be applied. A football team or an eight-oared crew is not taken to the gymnasium, or is kept there but for a short time. Players develop skill and confidence and have increased zest by engaging in the game at which they are to be tested. Embryo lawyers practice in a moot court. Contest debaters meet friendly teams in mock debates, and all these preliminary bouts are very real, presenting just so far as possible the situations which will be furnished in the final contests. Preparation for business should not be made an exception to the general rule. Power and the confidence to deal with commercial affairs will be furnished in the largest measure by using the material of commercial life as the subject-matter of instruction.

The kind of commercial education for which the plea is here made is both liberal and liberalizing. Too often the man of commerce has been the slave of his work; let him have a preliminary education that will enable him to become its master, to rise above the petty details and annoyances, and, while not ignoring these, reduce them to a system and see their broad meaning. This more liberal education may well be guided by a truth pointed out by President Hadley with regard to professional schools. Such schools have their largest usefulness, not in furnishing a multitude of details, but rather in equipping their students with general principles. Thus the future practitioners get the general principles which otherwise they would never get, and possessing these they learn the details of their work very quickly in actual practice. Commercial instruction is not to make full-fledged men of business; it will do its best work by giving an attitude of mind which leads to an intelligent and sympathetic interest in business. If commercial education does no more than to give men the power and the inclination for studious and devoted apprenticeships, it will render a high educational service and is well worth a place in our systems of instruction.

Secondary education is, I believe, at fault in teaching particular subjects and in teaching them in particular ways because they were taught, or were so taught, to earlier generations. Thus education becomes archaic, with the marked differences between the things

taught in school and the practice of the world for which the school is supposed to prepare. And thus the school and its discipline are looked upon as things apart from actual life. I saw recently the confession of a teacher who was determined that a child should learn to spell "gone." The child, as I remember, was required to write the word a hundred times as an exercise; but the exercise was one thing and the correct spelling of the word another, for at the conclusion of the exercise the child left a note on the teacher's desk saying, "I have gorn home." Now, it is the problem of the secondary school, along with other departments of instruction, to give a true education. A true education is an education which can be put to use which is after all a practical education.

In dealing with the actual content of a proposed high-school commercial course, I can find no better rule than to say that the aims should be social, both in subjects selected and in the study of these. I have already instanced certain subjects of broad general worth; to these should be added other studies that have to do with the science of society, such as history, economics, civics, and finally those subjects that furnish some knowledge of the technique of business operations. It has for some years been my contention that commercial education will get the best results by retaining many of the old subjects of study, giving to them new interpretation and application. Thus I would have in the curriculum of a commercial high school applied science, applied mathematics, applied geography, a new interpretation of history, special applications of English and foreign languages, and a new form of economics. Someone immediately says: "You have given too many subjects for the best educational results." But the matter to be settled is not so much subjects of study as it is material to be selected from these, and methods of study. A conscious aim running through the entire commercial high-school course will give unity and directness to what might otherwise be isolated and disjointed. Much of our high-school education lacks definiteness of purpose. Pupils are drifting, or they are doing things with no other end than to be doing them. Now, I submit that results from such a procedure are not fairly the basis of comparison with results from a course where subjects are co-ordinated with some fundamental idea as a unit. It is fair to state that the

commercial course for which I am pleading is complete, logical, cohesive, and balanced.

I am so firm a believer in the educational value of the course just described that I feel that such a course offers the best education in every sense of the word; best in the development of real intellectual power, best in the equipment it gives the individual to look out for himself. The education I am considering is not technical, it is liberal; it is not selfish, it is broadly humanitarian. For some years I have had to do with a school giving an education of this sort, and I have watched results with close attention and keen interest. I am frank to say that the effect upon the teaching force, upon the students, and upon the community is such as to make me an enthusiast.

First, as to the effect upon the teachers. The School of Commerce was put into the Central High School at Philadelphia in 1898, much against the judgment of the president of the school and the teachers. I was placed in charge of this project and began my task single-handed. It was uphill work for a year or so. Some teachers accepted assignments in my department under protest, while others refused outright to teach what they felt would be an inferior class of students. Solicitation and persuasion early overcame the objections of some, and others were converted by the earnestness and determination of our young men. We have now established an educational *esprit de corps* in which the teachers to a man take pride. Comparisons of the different departments are not to our discredit; teachers who have to do with students of all departments have repeatedly put themselves out of the way to commend the effort and the accomplishment of the School of Commerce boys. For the past two or three years our section of the senior class has been openly and repeatedly termed the most gentlemanly and best-intentioned. Late in the last school year a teacher of ten years' experience in our school voluntarily came with the statement that a commercial third-year class was the best third-year section he had ever taught from any department. Recently a new instructor of languages gave me the assurance that he found the classes of the department of commerce as oases in the desert. Said he: "Your boys show a real interest and try to learn." The statement just quoted is true of our work as

a whole. Our students are interested, they come for a definite purpose; we give them work which is related to that purpose, and they respond.

Evidence can be furnished in abundance to show that I am not misjudging results. Our boys have gone into practical affairs and given the best of accounts of themselves. Only the other day the controller of a big concern in which five of our former students are employed called one of the five, and said: "These high-school men we have in the office are giving fine service, and I have made up my mind that I want more of this kind of help. Now, won't you get me the names of eight or ten other men trained in the same department as you were, so that I may correspond with them with a view to taking them on." This is but an instance of a large number of cases that have come to my attention. I believe that we could place to good advantage ten times as many boys as we have thus far been able to train.

But I can furnish what a company of teachers will likely regard as more convincing evidence still of the educational value of a commercial high-school course. We began with the sole thought of giving a finished education to boys who were to leave the high school and go to work, but in the four classes we have thus far graduated there have been an increasing number of those who wished to continue their studies in engineering, in commerce, in general college work, or in the professional schools. By some slight modification of the program in the fourth year students are prepared to pass entrance examinations, or they study during the summer and meet the entrance requirements, or some of them have gone into college on conditions which they easily made up. Though we are primarily a finishing school, we have had no difficulty in getting students into college, and they have made good records after getting there. In June, 1904, we sent a boy, by no means exceptional, to an examination for the Massachusetts Institute of Technology, and he passed in advanced French, advanced German, and all the other subjects of the requirement without condition. This same fellow easily made good his standing in the critical first year at the institute.

In our first class was an ambitious son of plain German people. His standing was such that I was able to get for him a free city

scholarship at the University of Pennsylvania. He was admitted on our certificates in all subjects except French, he having studied Spanish at the high school. Unaided, this boy worked up two years of French in a single summer, and passed the entrance examination with a good margin. More than this, he went into French work at college on that preparation and made the grade "distinguished." This student entered at the Wharton School, where certain work was a duplication of what he had taken in the high school, and with credits for this and by examinations he gained sophomore standing. Here he came into competition with a goodly number of men prepared in fitting schools of all kinds, and who had also been one year in the university; but, improbable as it may sound, this boy headed his class and was awarded the Terry prize for the best standing of any second-year man in the Wharton School. He also won the first prize in an important essay competition. By credits, examinations, and special work that boy in two years completed the sixty units required for graduation at the University of Pennsylvania, and I may say that he did this not by electing snap courses. He was given a graduate scholarship with an income, and began last year an important piece of investigation, which investigation has been continued during the last summer in London, and the young man is now studying at the University of Berlin. I may remark that in all probability this young man never would have come to the high school but for the School of Commerce work.

I can cite another case, I believe more remarkable still, showing what a commercial course can do toward producing an educational result. We graduated last June a fellow who took our heavy fourth year with the highest possible mark in every subject. He was judged by those who taught all the fourth-year students of the school to be "conspicuously the ablest man in the class," and by some he was said to be the most satisfactory student they had ever taught. We were able to get for this boy the highest honor that comes to a Philadelphia schoolboy, a Simon Muir scholarship, with an income of $400 a year for four years, good in any American college. This fellow has shown a phenomenal capacity for language study. He has read a list of German and French books nearly a yard long, and has had no difficulty in taking junior standing in German. But, more than

this, the same boy has studied Latin as a diversion. In addition to the necessary preliminary mastering of the grammar, he read alone while in the high school the seven books of Caesar's *Gallic War* and all of Caesar's *Civil Wars*. He put himself to the test in a regular examination on four books of the *Gallic War*, and passed with an "excellent." This boy had the discipline from a study of modern languages by which he made up the four years of preparatory Latin, and is now reading Livy in college. He has also gone into the study of Greek with the keenest interest. It should be added that this student was awarded the Eugene Delano prize for the best entrance examination in French and German.

There is another aspect of going to college that especially appeals to me. Our students are urged to find some useful employment and look out for themselves. Many of them get outside work while they are attending school and during the summer recess. We have quite an industry in supplying clerks and stenographers to summer hotels at the seashore and in the mountains. These outside activities have an important effect on the students. I have almost come to believe that any boy from our school who is made of the right sort of stuff can go to college and see himself through. I have in mind a young fellow who started in two years ago with barely money enough to pay his first-term bills. He has paid his own way, has had the best of a good time, has served on the college dramatic organization, won a place on an intercollegiate debating team in open competition, and has been a leader in many student enterprises. Now this fellow comes up to the beginning of the third year with $300 in the bank, and he has, moreover, because of his record, just been awarded a faculty scholarship giving him free tuition. Although he is barely twenty-one years of age, this fellow has been offered the treasurership of a reputable concern for which he has been working, and at a salary of one hundred and fifty dollars a month; but he has had the wisdom to go back to college. We may approve of an education which enables young men to develop themselves in this way, not only because it is good, but also because it is good for something.

Of course, I have given the records of our best students, but what a few have done superlatively well many others have done creditably. We started in with no thought of preparation for further study, and

this preparatory work is still incidental. Our aim is to give an education, to make our young men into gentlemen who are not afraid of work and who have habits of correct thought. Out of a class of thirty-seven graduating in June last, two have entered the city School of Pedagogy to become teachers in the grammar schools, two have entered on a college course preparatory to a study of divinity, two are in engineering schools, one is in a general college course, four are continuing special studies in commerce at the Wharton School of Finance and Economy, one is in a medical college, one is a physician's stenographer and is studying medicine in the office, and one has made the same arrangements in a lawyer's office for the study of law. This does not include a number of the thirty-seven who are already entered in various night schools for a study of languages, chemistry, textile work, architectural drawing, designing, etc.

It is gratifying to feel that when young men are equipped to meet the demands of the outside world they can also satisfy the requirements of the higher institutions of learning. If they could not, it would be a sad comment on the demands of these institutions. There is still a change that I should like to see brought about in the relations of colleges and secondary schools. It is in the acceptance of vocational subjects for college admission. Those who have the inclination to go to college and the capacity to profit by attendance at college should have the way made easy for their going. I would have as many roads as possible between the secondary school and college, but only with this condition that they be the roads of a true education. And I believe that as much mental power can be secured from a study of the narrowly vocational subjects, and the vocational study of other subjects, as can be had in any other way. Largeness of view may be had through the consideration of narrow interests over wide periods of time, or of wide interests over a narrower period. The kind of education here meant is limited as to reach of time, but world-wide in its interest.

My plea is not alone for the establishment of commercial schools and courses, but also for breadth of view in them where established. We should raise our voices against any notion of education along the lines of least resistance. The commercial course meant by this paper is not to be merely a duplication of the technical commercial school.

The worst evils of the elective system have worked to the injury of commercial education. Students in some public high school are permitted virtually to follow the work of the business colleges, by taking commercial studies at any time and in any order. Students from other schools have come to us, all out of gear educationally through having been allowed to study shorthand or bookkeeping the first year in the high school instead of algebra. Commercial courses in high schools should not be limited to furnishing facility in one or more of the branches of business. As was pointed out by Plato, mere technical skill or cleverness is not worthy to be called education.

The value of a school or course should not be in its students having any brand of knowledge, or passing any set of examinations; rather should it be in the temper of mind created, the attitude given toward life and the future of those educated after they go out from school. Just now our communities are passing through a grave moral crisis, and it is incumbent upon our schools to give familiarity with every branch of work in the society of which they are a part, and so to quicken the moral sense of those educated that the too obvious indifference of the present will cease. Commercial education is an education for social needs. Let us who have to do with commercial education stand for those broad principles of justice and humanity which shall have regard for the duties and obligations of men to men. This can be insisted upon both in the selection of subjects for study and in the methods of studying them. We shall never get the correct notion of commercial education until we see in commerce the exchange of services, until we see in goods, not money, but blessings. In last analysis the educational worth of commercial schools is found in the fact that they can train for the largest and best social service, and in doing this it is my firm conviction that they furnish the broadest, the most liberal, and the most useful education.

THE AIM IN THE HIGH SCHOOL—THE DEVELOPMENT OF THE MANY-SIDED INTEREST, OR SPECIAL PREPARATION FOR LIFE?

NATHANIEL BUTLER
University of Chicago

The topic seems to stand slightly in need of restatement. Probably the intent would be more clearly expressed if in place of the phrase "special preparation for life" we were to substitute "preparation for vocation."

Even then the topic involves us in the danger of falling into a fallacy. It seems to set up an antithesis between special preparation on the one hand, and the establishment of the many-sided interest on the other. And if we are not careful, we shall find ourselves talking as if the two were opposed instead of being in relation to each other, and we shall be trying to settle their opposing claims instead of trying to find their true relations.

I believe we have found out in education that in fact the two ends are, in great degree, gained at the same time, by the same processes. Special duties and special tasks educate us. Nothing that is worth doing is so special that it has not some general educational value. On the other hand, special preparation, if it is thorough, involves much that at first seems unrelated to it. Thorough technical training involves much that is not purely technical, much that underlies all technical skill, just as health of body underlies all kinds of physical activity.

We have, I believe, found out another thing: that while the two, the establishment of the many-sided interest and preparation for vocation, are indispensable parts of education, and never absolutely separable, the emphasis shifts from stage to stage of the educational process; and that the thing of chief importance in adolescence is the setting up of the many-sided interest, not in opposition to special preparation, but as an indispensable prerequisite to special preparation.

I am to consider this subject "from the university standpoint." I take it for granted that for this discussion it is not important to make a distinction between the college and the university. This distinction we ought, however, to have very clearly in mind, particularly as teachers in a state in which there are three great universities and several excellent colleges. However, my attitude toward the present question, as I understand it, is to be taken from the point of view of that stage of education which succeeds the "secondary" or high-school period. From this point of view I repeat that I believe the main purpose of the secondary school to be to develop and establish the many-sided interest, because that essential function of education is not likely to be performed at all if it is not performed by the secondary school, especially since, in the stage immediately following the secondary stage, preparation for vocation becomes, in a rapidly increasing degree, the absorbing interest.

Let us try to define two words, "culture" and "education."

Perhaps there is no word in our educational vocabulary more in need of precise definition than "culture." Such a definition becomes, however, comparatively easy if we only recall the characteristics of a man whom we consider a man of culture. Two things, I believe, mark him. First, he has a sincere and intelligent interest in "the finer things of life"—in art, music, literature; yes, and in the still finer things—courtesy, friendship, religion. These are what alone give point and meaning to life; for if we do our work and draw our pay in order to do more work and draw more pay, in order to do more work and draw more pay, the whole process is meaningless. We are merely traveling in a circle. But it all takes on meaning and value if, in the intervals of "earning a living," a man knows how to live. The second thing that marks a man of culture is a sincere and intelligent interest in the pursuits of other men. A man must of course be a specialist; but unless he conceives his vocation in its relation to the work and interests of other men, he does not conceive it rightly. It is this that makes a man able to provide for his household, not only a roof and walls for shelter, but a home with the true "atmosphere." It is this that saves us from being mere wage-earners, artisans, tradesmen, and professionals, and makes us citizens. I repeat: The two distinctive marks of culture are the appreciation of the finer things

of life, and intelligent sympathy with all great human interests. It is impossible to explain why anyone should live, save in terms of culture.

We have had many good definitions of "education." Probably none is more familiar than the one attributed to Herbert Spencer, which makes education a preparation for "complete living." The only thing about the definition that is unsatisfactory is that it contains terms that need defining, for complete living is conceived very differently by different people. A still better definition, and one beyond which it seems we shall hardly advance, makes education a training for social efficiency. From any point of view, this definition is felt to be sound.

Perhaps no better illustration of what we mean by "social efficiency" can be found than that afforded by such a game as football. If a man is to be efficient in that game, he must be "socially" efficient. It is inconceivable that he should be efficient for himself alone. He must know what team-work is. Four things will be true of him. First, he will be master of his own particular function in the team. In ideal, at least, he will be able to play his part better than he could play any other part in the team, and he will be able to play his part better than any other man in the team could play it. He will be, therefore, a specialist. But, second, he must be alert and alive physically and intellectually; otherwise, though he may know his part as an expert, he is of no value to the team. Third, he must understand the game as a whole, in order that he may play intelligently with reference to the other ten men. And, last of all, he must have that sort of disposition and attitude which will make him play the game for all it is worth as a clean, honest, honorable, and high-toned man. Each of these requirements, and all of them together, are essential for his efficiency in the game.

The game of football is in this respect a complete analogue of life, and the requisites for efficiency are the same in the two cases. In the order of time, when we come to education, the details are somewhat differently related. For "life" as well as for football, the individual must be, in the first place, alert and alive, intellectually and physically. He must be able to command his faculties and make them do his bidding promptly and well. He must have that peculiar

and somewhat vaguely conceived thing called "power." He must be able to command a hundred per cent. of his recources for any task that is to be done. In the second place, he must possess what we have called general culture, if he is to be in a high degree socially efficient. He must know the game and his relation to it, and must do team-work. In the third place, he must possess that crystallized tendency to sound and appropriate conduct which we call "character." On every hand we are constantly reminded that this must be the great crowning result of education. President Roosevelt is emphasizing this again and again. It is emphasized by the recent startling revelations of the lack of that quality in men in high places. The public press declares over and over again that our schools are not doing their duty unless they turn out good citizens. There seems to be general agreement that the ultimate value of general education is to be expressed in terms, not of intellect, but of character and conduct. The fruit of education should be intelligent and moral conduct. And, in the fourth place, after general education must come preparation for vocation. As Emerson declared, no man can justify his place in the world unless he earns his living.

What I am trying to point out at this moment is that vocation, indispensable to social efficiency, is by no means the whole of social efficiency, and that preparation for vocation is not the whole of education.

Now, I say that among the essential elements for social efficiency, of which special preparation for vocation is one, the peculiar emphasis shifts from stage to stage, and that the high school must concern itself chiefly with the three that are co-ordinate with vocational training, and that precede and underlie the distinctive work of vocational training.

It is a remark of Quick that, when a boy is about to leave school, and we wish to forecast his prospects for a successful career, we ask, it is true: "What does he know? What is the state of his health? What sort of skill does he possess?" But none of these is the essential question. The questions of first importance, as bearing upon his future, are: "What does he love? Whom does he admire and imitate? What interests him?" This same thing is true of a man at any time of life. These are the important questions for the indi-

vidual and for the state of which he is a member. What sort of men and women do you want your schools to turn out? Skilled workmen and masters of professions and vocations? Yes, truly; but surely not that alone, nor chiefly. Professor James reminded us in a public lecture recently that we must cease looking to education for the millennium, because we have found that education makes men only keener and more ingenious in discovering the means of carrying out their desires; that the intellect is only the slave of the passions; and that, while education and culture save us from the grosser crimes, they seem to reveal to us meaner ones. All this, and what it implies, is of course true, if by education we agree to understand only that discipline which trains the individual to think and to know; but we are not so agreed, and were never less so than at this moment. We demand of education that its products be something more than merely intellectual machines for specialized work.

Now, *when* are you going to secure that your boy or girl shall turn out this something more? It is commonplace that at any time of life we are interested only in those things of which we already know something. Herbart, James, the new education, observation, unite to remind us of this. Again, it is commonplace that the time for taking on new interests passes. For a while, say twenty years, our chief business is to get acquainted with the world. Through literature, history, philosophy, and science the individual is getting familiar with the spiritual possessions of his race and the material world in which he lives. The great concern of his education during this period is, in a word, adjustment. Nature says to the child and to the adolescent: "Become familiar with, and master of, the world which is, and is to be, your home." But presently Nature turns the key and says: "No more of this. Your stock in trade is all in. Go to work with what you have. Beyond this there is practically nothing new for you." To change the figure, Nature permits for a while the cutting of windows through which the soul may look out upon the world. The time comes when no more windows may be cut. Before that time it must have been determined whether the soul shall have a general and true, or a narrow and special, view of the world.

The logic of all this seems simple and irresistible: The time for taking on the great general interests of life is precisely the time when

the secondary school has the boys and girls. If, then, you narrow the boy down to special vocational training, you will have a narrow product—a wage-earner, a skilled artisan, but not a citizen. We have always known this. Consider our programs of study. From whatever standpoint, we have reached the same results. Dr. Harris has only put into form what we have always clearly or vaguely known, when he reminds us that education must give to the individual two kinds of knowledge: first, knowledge of the sort that enables men to master the physical world for human uses; and, second, knowledge of the sort that enables men to co-operate with their fellows for higher social ends. Then he reminds us that for this purpose five great groups of subjects must be present in the school curriculum. These are: (1) mathematics and physics; (2) institutions (history, philosophy, politics, etc.); (3) the national literature; (4) foreign languages; (5) science. All this means that we are setting up in the boys and girls the elements of interest in all the great human concerns, in order that the time may never come when they shall be unresponsive to these, and that whatever their vocation may be, they shall be socially efficient. In life there is but one elective, and that is vocation. All the other things enumerated above are the great prescribed constants. Adding to this five-elemented program of study-material the organized social and physical life of the school, we are in a fair way to discharge the function of the high school which President Stryker has declared to be to turn iron into steel, leaving it to the special technical or professional school to shape the steel into an instrument. Or, to drop the figure, we are in a way to give our boys and girls strong and sound bodies, free and independent characters, the ability to form an intelligent opinion, a taste for the finer things of life, agreeable manners, and the ability so to deal with their fellows as to contribute each his full share toward whatever makes for the common welfare.

Let me conclude with these propositions. The boy must live in a many-sided world; he must participate in a many-sided life; he must play his special part, but he must conceive it as a *part* related to other parts. His vocation is indispensable to social efficiency; but not one whit less essential is general intelligence applicable to the larger affairs of home, neighborhood, municipality, and church. The university, with its special technical and professional schools, must concern itself

chiefly with training for vocation. The emphasis in the university must be on what the individual is to do in life. In view of the relation of the many-sided interest to special vocation, and in view of the special period of life that precedes the university period, we refuse to make the secondary school in any degree a trade school. We refuse to specialize too early, in order that we may later specialize more effectively. We keep special preparation, in the sense intended by this topic, out of the high school. We seek, however, the special preparation that consists in establishing interest in the great constants of life, to make the boy forever responsive to the appeals of these interests.

Because we are all for securing the best sort of special preparation, we work to develop the many-sided interest in the boy as his best preparation for life in general, and as an indispensable prerequisite for highest efficiency in whatever turns out to be his chosen vocation.

THE PLACE OF THE HIGH SCHOOL IN OUR SYSTEM OF EDUCATION[1]

DR. A. F. NIGHTINGALE
Superintendent of Schools, Cook County, Illinois

The free public high school is an educational necessity. The common school, in which are exploited the rudimentary branches, and from which the immature child can obtain at best but a mere modicum of superficial knowledge, does not equip a boy or girl of twelve or fourteen years of age with that measure of self-helpfulness essential to success in this new century. The word "high" as applied to a certain division of our school work is an erroneous appellation, a very unfortunate and misleading designation for that which is extremely ordinary, and by no means high or uncommon. The common school, poor and puny as it was, seemed quite well adapted to the times of our fathers, who were copyists of monarchical customs, and when the colleges were almost exclusively for those who would learn to expound the gospel through a study of the original Greek or Hebrew; when this Empire of the West was a wilderness, and the rivers ran unfretted to the sea; when no bridges crossed the streams, and no steamers traversed the waters; when there were no railroads, nor telegraphs, nor telephones, nor phonographs; when the mountains were not tunneled, nor ocean spanned, nor mines developed; when the president-elect of the United States went from Boston to Washington on horseback to be inaugurated, and it took ten cents and a week's time to send a letter from New York to Philadelphia; when there was no monopoly in trade, and competition was the life of business; when the cobbler made our shoes and the housewife our clothes; when the "butcher, the baker, and the candlestick-maker" were abroad in the land; when each man plied his own trade or lived on his own little farm; when his capital was brawn rather than brain, and head-thinking was subordinated to hand-hustling.

In that age of the pioneer, when forests had to be felled, roads

[1]Read at the Illinois State Conference of Teachers, December 27, 1905.

constructed, and the "rude huts of our forefathers" erected, there was little time and less occasion for a schoolroom education such as is demanded in these days of our refined civilization, our scientific methods of thought, and our commercial transactions with the ends of the earth. We are living in an age of automatic machinery, where the raw material goes in on one side, and the finished product comes out on the other side. The world's work is mental rather than manual.

The common school of that early day, for that early people, was more than the high school of our day for our people. The division, then, of our public schools into "common", "high," and "college" is misleading. The term "elementary" should embrace what are now known as the first twelve grades, comprehending in general the time of life between the ages of six and eighteen. Proper facilities for such an education should be within the reach of every normal child. The equipment, mental and moral, secured by the child within these years, from well-directed instruction adapted to his needs, capacities, and pre-natal endowments, is not superior, in its relations to the world of today, with all its strenuosity and struggle and strife, to that equipment which the school of the three R's gave to the children of two or three generations ago, when one dollar was equal to five dollars now, and when what are now the necessities, or at least comforts, of life were luxuries and obtainable only by the few, if at all. If the public for its safety, security, and success; for its growth, development, and progress; for its comfort and contentment, would mete out to the children of the present in the way of opportunity what it supplied to those of three-score years ago, it must place this misnamed higher instruction within the reach of all.

It is time we put aside that foolish cant that gives to the schools of one hundred years ago the credit of producing the Websters and the Clays, the Stowes and the Somervilles. They were great in spite of the schools. Manual training and domestic science were compulsory in those days; boys and girls were taught the dignity of labor and the danger of shirking, not in the schools, but in the fields and the forests, in the chambers and the kitchens, and it was a question of keeping the wolf from the door, not of buying sealskins and sable furs. We sometimes hear the little red schoolhouse deified, as if

within its walls were wrought the ribs of steel that were fashioned into the framework of our superb government. Fie on it! The schooling of those days was that of privation and suffering, of hard labor, digging stones to build walls, splitting rails to make fences; of labor from early morn, with the axe and the saw, the plow and the drag, the flail and the spinning-wheel, the mop and the churn. These were the gymnastics of the pioneers, out of which came men and women of human sympathy, and human love, and human devotion.

But today all is different, and it is no longer in the field and the forest, but in the schools, elementary and higher, that we must develop mind and teach manners and morals and citizenship and civic righteousness.

What made three millions happy then will not make eighty millions contented now. Wherever we find now the custom of living and laboring that prevailed scores of years ago, we find poverty and penury, sloth and sluggishness, ignorance and stupidity, if not in reality, at least in the seeming.

We do nothing as our fathers did. We neither live in the same style of houses, eat the same kind of food, drink the same kind of water, nor sleep in the same kind of beds. We neither sow, nor reap nor gather into barns as did they. Methods of buying, selling, and trading are all changed; commercial transactions, travel from place to place, intercommunication, are differently conducted. We manufacture more in a day than formerly in a decade. Agriculture has improved by leaps and bounds. The beneficial results flowing from our experimental stations through the intercessions of governmental interest, in analyzing the chemistry of soils, showing defects and presenting remedies; in the breeding of corn, making land yield a hundred bushels where before it yielded but fifty, and of greatly improved quality; in the feeding and fattening of cattle and swine; in the destruction of pests; in the scattering of bacteria to produce alfalfa, where none would grow before, are making the intelligent and educated farmer the aristocrat of the nation; while they who sneer at the claims of higher education, and are satisfied with things as they were, are being relegated very rapidly to the rear. The claims, circumistances, and conditions of life at present, then, make it of supreme mportance that we should give the opportunities of a high-school

education, within easy access and free tuition, to all our young people, without regard to race, class, color, or station in life.

President Roosevelt recently said:

> If you are going to do anything permanent for the average man, you have got to begin *before* he is a man. . . . . Speaking generally, the chance of success lies in working with the boy and not with the man. I think people often completely misapprehend what are really the important questions. The question of the tariff, the currency, and even the regulation of railroad rates are all subordinate to the great basic moral movements which mean the preservation of the individual in his or her relation to the home, because if the homes are all straight, the state will take care of itself.

Dr. James, in his inaugural address, said:

> The state university is, to my mind, necessary in order to help maintain the democracy of education, to help keep education progressive, and finally in order to keep higher education close to the people and make it the expression and outgrowth of their needs.
>
> It is corrective rather than directive; it is co-operative rather than monopolistic. It should be as universal as the American democracy, as broad, as liberal, as sympathetic, as comprehensive—ready to take up into itself all the educational forces, giving recognition for good work wherever done, and unifying, tying together all the multiform strands of educational activity into one great cable, whose strength no man may weaken or measure.

Frank Vanderlip, former assistant secretary of the treasury, said in a recent address:

> Education is the secret of our commercial expansion. I have made a careful study of Germany's economic success, and I have become firmly convinced that the explanation of the remarkable progress there is to be traced, in the most direct manner, to the German system of education. The schoolmaster is the great corner-stone of Germany's remarkable commercial and industrial progress. The school system of Germany bears a relation to the economic situation that is not met with in any other country.

We all know something of the thorough secondary education which the laws of Germany insist should be given to its youth. Principles of wise business management are taught. The aim is to prepare a student for the practical conduct of a business. He gains knowledge of production and consumption, of markets, and of the cause of price fluctuations. He is put into a position to acquire an insight into concrete business relations, and into trade practices and conditions. Are not these aims worthy of our schools? What truer

democracy can there be than to have a school system that will point the way to every worker, no matter how humble, by which he may rise to a position of importance in the industry in which he is engaged?

To do all this does not mean the "commercializing" of our educational states. There is no need for opposition even from those who hold that it is not the place of the schools to teach youths how to earn a livelihood. There are in the United States 10,000,000 of population between the ages of fifteen and twenty years. Three-quarters of that number are not in attendance at any school. What an unreckonable advantage it would be if a substantial proportion of that seven and one-half millions were to be brought within the influence of a practical system of education designed to make such youth a more efficient economic unit.

The shibboleth of educators should be that not alone in cities large and small, nor in town and villages, whence rise the smoke of industry and the din of business, but in every community, rural as well as urban or suburban, whose children are born to the same birthright, inherit the same talents, are endowed by nature as richly, and are as full of promise, as the children who live on city boulevards, there shall rise in some central spot, where the trees cast their shadows and the prairies around glow with the fruits of toil, a high school where the humblest child shall find opportunity for development along the lines of his adaptability, even as the city child is furnished instruction according to his environments.

I am aware that the members of this association need neither the lore of the past nor the logic of the present to convince them of the necessity of fair play in the distribution of educational opportunities. It is rather the people who are denied, or who deny themselves, these privileges for their children that should be awakened, aroused to a sense of their irretrievable loss, to a sense of their inalienable rights.

I do not indulge in a melancholy pessimism when I say it is a shame, an outrage, in this land which boasts of equal rights and equal opportunities, in this great state of Illinois, with its boundless resources and its incalculable wealth, where the barns and granaries are bursting with the products of the richest soil nature and time have made, that the boys of the farm, the children of the prairies, as bright,

as promising, as willing, and as winsome as any the sun shines upon, must be satisfied with the merest morsel of the educational feast spread with such bountiful richness before the children of the city; or drive in buggy or ride on horseback miles and miles to some prosperous village, and pay from twenty-five to fifty dollars a year tuition for those privileges which ought to be brought to their doors as free, as full, as rich, as rare, as those for which the people so generously tax themselves in the more populous centers.

We are constantly crying out against the exodus from the farms to the cities, from the centers of virtue to the centers of vice; and yet by our apathy and indifference we are denying to the children of the prairies that education which lies at the foundation of our national progress, which is the greatest boon that comes to our homes, and which is the surest precursor of more happiness and contentment than all the stocks and bonds of the Rockefellers and the Vanderbilts. The country life of America should be made as pleasant, as attractive, as inspirational, as the country life of England. The people of the rural districts furnish the sinews of war in times of war, and are rapidly furnishing the sinews of peace in these piping times of peace. Never in the history of this agricultural nation has the soil spoken so eloquently to us as during the harvest just gathered: $6,415,000,000 dollars worth of cereals for the world's consumption! What does it all mean? The farmers here and there are fast becoming their own bankers, brokers, stockholders and home-owners; mortgages are disappearing as mist before the morning sun.

The deep researches of science published in hundreds of thousands of pamphlets are telling us that we can raise $10,000,000,000 worth of products from the properly preserved and enriched soil where we have now raised $6,000,000,000 worth. The education of these sons and daughters of the field and the forest along these lines is the one crying need of the day.

It is high time, then, that we, who are supposed to control educational thought and educational progress, should sound the tocsin of reformation and revolution all over the prairies of our peerless state, and carry the alarm to every "village and farm," and so awake the slumbering thoughts of the farmers, the first citizens of the land, to their needs, their privileges, their rights, that they will knock at the

doors of our legislative halls, until shall come an enactment that shall give us high schools—by state aid, if necessary—that will be as free, and as easy of access, as are the little crossroad schools in the least populated districts of our counties and townships.

The high school is not only an essential in that which it of itself gives, through its own instruction in the character-building of its pupils, but it is of incalculable inspiration to the common schools which administer to the preceding years of a child's life. It has been asserted over and over again, and with cumulative emphasis, that all improvement in the means and methods of mind-training has its initiative, not in the below, but in the above.

As rain and snow and warmth and light come from on high, so do the influences that make men wiser and teachers more sensible. It has been clearly and incontrovertibly demonstrated that since the high school became a fixed institution in the curriculum of our national study, the common schools of our cities and larger towns have been lifted out of a condition of monotonous mediocrity and placed upon a much higher plane of national instruction. Not only has this higher education—which, please remember, I do not regard as very high—been instrumental in the gradual introduction of music, drawing, physical culture, manual training, and domestic science into the lower schools, but it has more especially and more essentially given to every teacher higher aims, and infused into every pupil higher ambitions. Every hill seems high from the deeps of a valley, but hills dwindle in the sight of small mountains, and ordinary mountains become valleys as we climb Mont Blanc and Mount Shasta. Wherever the common school furnishes all the education for which the people tax themselves, there you will find poor schools, because there is nothing beyond. The dyspeptic pessimist who has no children—or, if he has, ought not to have them—may deny this, but his very denial is an *a priori* proof of its truth. And whenever you find a fairly good high school enlarging and enriching itself with more scholarly and more sympathetic teachers, and with a better equipment, there you will find the common school being gradually uplifted and strengthened and improved. When the rank and file of children secure all the oatmeal instruction which the schools in their neighborhood offer, it is natural for them to think that they have

about all the education that is necessary. The teacher or teachers of such a school have little ambition beyond the perfunctory performance of their daily routine of duties. The citizens are indifferent to the higher needs of their children, because the school exerts no influence beyond the quarter acre on which it is located, and there is no educational ozone in the atmosphere around. If perchance, in this deadening circle of work and sleep, there is some bright boy who happens to find a good book that interests him, like a biography of a Franklin, a Lincoln, or a Stephenson, and from communion with his own thoughts and the thoughts of others breaks away from the deteriorating influence of his environment, and strikes out for himself with a persistent determination to get an education and be somebody, it is more than likely that his associates will conclude that he was preordained of the gods to be a scholar, and think little more of it.

If, however, within a mile or two of this selfsame good-for-little school, there springs up, through the force of one good and sane man, who may still save a city from destruction, a high school, this common school, that seemed going into decay, will awaken into a new life, and scores of bright boys and girls instead of one will give birth to new hopes and new aspirations, and fill their minds with the riches of a higher education which will make rock and tree, and soil and leaf, and twig and bud and blossom, and earth and sky, and home and heaven, seem brighter, purer, sweeter, and give them the power and the purpose to go out into either a strenuous or a simple life, and not only reflect credit upon themselves and upon those who helped them in their dire need, but be a benediction and a blessing to the society in which they move.

Many years ago it was my fortune (whether good or ill I did not then know) to be invited to go out several miles from the city to present the claims of a township high school. The majority, or nearly so, of the people were tenants of a very wealthy landowner. I said to them: "You do not own the homes in which you live, nor the land on which you toil. You pay no taxes; but you have children, and those children ought, and have a right, to be educated. If you will but rise in your might and your right, and will appreciate the needs of your children, and go to the polls and vote for a high school, you can have free for them an education equal to that obtainable

in the great city." And the next day that great landowner came down to his vast estate and said: "What anarchist was he who came over here to stir up my tenants ['my serfs,' he might have said] to vote taxes on my property?" Those people bowed their vassal heads at his dictation and defeated the proposition. But there were a few who, like Garrison of old, were in earnest; they would not equivocate, they would not excuse, they would not retreat a single inch, and they would be heard; and after one or two more efforts the proposition was carried.

There not only exists today in that township one of the best high schools of the state, located on five acres of ground, which the landscape artist has made a garden of beauty, and near which a large athletic ground has been recently purchased for the sole use of the pupils, but the value of the land all over that township, because of the presence of that high school, has been incalculably increased.

Whether, acting in the rôle of an anarchist, as alleged, I hastened or delayed the establishment of that school I care little, since it soon came. Agitation always foreruns the success of every great cause. John the Baptists are essential to the birth of every great epoch. Nothing can withstand public opinion. Let this subject of high schools be discussed in the kitchen and the parlor, then in the corner grocery and the post-office, then in the public hall; and success is sure. Phillips says that there is nothing stronger than human prejudice. A crazy sentimentalism, like that of Peter the Hermit, hurled half of Europe upon Asia and changed the destinies of kingdoms. "We may be crazy," he said. Would to God we were all crazy enough to let these hearts of ours beat, beat, beat, under the promptings of a common humanity! With this faith, this purpose, we can not only keep Illinois first in corn, but make her first in schools.

Ours is a peculiar nation. England is for Englishmen, Germany for Germans, and France for Frenchmen; but America is for all races, all classes, all conditions, and all complexions of mankind. It is the complete agglutination of this conglomerate mass of all peoples that will make and keep us a puissant republic; and in no institution and under no conditions will this be so fully, so richly, and so safely brought about as in our secondary schools.

The social, intellectual, and moral life of our high schools, the deli-

cate and determining age at which pupils attend them, the most potent character-building period of all the years, the close relationship of teachers and pupils, the self-respect engendered, the friendships formed, the ambitions awakened, all tend to knit together into a common bond of aspiration these young people who are soon to become an important factor in our general community life.

Again, if the children of the great middle class of American citizens, who constitute the hope and the heart, the safety and the security of our republic, are to be educated, and thereby prevent an educational aristocracy of the rich alone, we must have free public high schools in every quarter and corner of the country, and make them tributary to the colleges and state universities. It took a decade of the fiercest fighting to make the colleges see that their work must commence where the high school leaves off; that there must be no unfordable moats, tangled meshes of barbed wire, nor manholes between the one and the other, and that the *acquirements* of the one must be the *requirements* of the other. This harmony now prevails; the union is complete. As the high schools lend an inspiration to the common schools, so the universities lend an inspiration to the high schools. The high schools, however, have something to learn that they have not yet learned. They are not colleges, and they should not ape colleges. To call these pupils freshmen, sophomores, juniors, and seniors, to encourage class yells and class colors, to espouse the brutality of football, or even to permit the existence of secret fraternities and sororities, are each and all detrimental to the better interests of the growing, adolescent child. These institutions in colleges are an inspiration; in high schools, a menace. In colleges they help to make men manly; in high schools they make boys mannish and girls silly. From the high schools they should be eradicated at all hazards. The high schools and common schools of a city, village, or township should all be under the same supervising board. The petty jealousies and unkind criticisms which now prevail between them are unworthy of anyone who would be called a teacher of youth. And when one board of education and one superintendent arranges and supervises the program of study, the methods of instruction, and the manner of promotions, these influences, which are now so harmful and so inexcusable, will be abandoned and forgotten.

In conclusion, then, let me say: In the name of the children of the farms, which so largely constitute the wealth of Illinois; in the name of the common schools, which need the inspiration of higher institutions to make them all they ought to be; in the name of the colleges, which should be fostered, not to educate the few of the rich, but rather the multitude of the middle class; in the name of the comunity, always willing to be taxed to make homes happier and lives more contented; in the names of all the youth who wish to be led into the ways where wisdom weaves her garlands, and who need, in these perilous years of that mysterious transition from childhood to maturity, the guardianship of the purest morals, and the guidance of the truest friends; and, lastly, in the name of the republic itself, whose perpetuity will depend on the sanity and intelligence of its citizens, I appeal to you, fellow-teachers, and through you to the homes of the state, to use every opportunity when afforded, and to make them when not afforded, to create a public opinion which shall crystallize into the establishment of free public high schools in sufficient number, and so conveniently located, as to give every child the advantages of this extended education.

EDITORIAL NOTES

Just as this number of the SCHOOL REVIEW goes to press, the educational world is learning of the death of President William R. Harper. Of his administrative ability, of his power to gain the support of others for his educational plans, of the tremendous enthusiasm with which he labored at an astonishing variety of tasks, any one of them sufficient to demand the full attention of most men, of his interest in the problems of secondary education manifested in the organization of educational conferences at the University of Chicago which have been reported in this Journal, of his fertility in the projection of schemes for reform and advance in both general and religious education, of the extraordinary energy with which he took up and pushed on any plan which appealed to him as desirable — of this the educational world knows. Of the various policies originated or developed by him, perhaps none has proved more useful to the secondary teacher than that of the summer session. Nearly all the leading universities now offer facilities for summer study, of which secondary teachers avail themselves in increasing numbers to continue their studies and keep themselves abreast of advancing scholarship.

PRESIDENT HARPER

But President Harper as a teacher was perhaps not so well known; yet some who knew him before the work of administration was taken up like best to think of him in this capacity. His subject — Hebrew and other Semitic languages and literatures — was not apparently a favorable one for enlisting interest. Even as regards the English Old Testament, people seemed more ready to believe it than to understand it, more inclined to resent inquiry than to study the sources. But under the influence of Dr. Harper's genius and enthusiasm as a teacher, Hebrew and the Old Testament became fascinating studies to many hundreds — in his seminary and university classrooms, in numerous summer schools, and all over the world through correspondence courses. Those who sat in his classroom will never forget the vigor of his drill, the dramatic power with which he threw himself into the part of Hebrew prophet or psalmist, the clearness with which he set forth the leading issue, the skill with which opposing theories were presented and examined. His enthusiasm was contagious, and such a vigorous spirit of research as characterized his classes in those days is rarely seen. The work of an administrator, embodied in an institution, is more evident, and perhaps more permanent. But inevitably in becoming institutionalized it becomes less personal. The work of the teacher who really inspires and stimulates, who really awakens life, is more personal, more human.

BOOK REVIEWS

The Teaching of Modern Languages. By DR. LEOPOLD BAHLSEN. Translated from the German by M. BLAKEMORE EVANS, Ph.D. Boston: Ginn & Co.

The overworked American teacher of modern languages might well have hesitated to plunge into the study of the reform of modern-language instruction in Germany, being at the very outset confronted with two volumes of mere bibliography,[1] not to mention thirteen volumes of a journal[2] wholly devoted to the same subject. Thanks are therefore due to Miss Brebner[3] for the initial attempt to summarize the main issues of the controversies involved for the benefit of the language teachers in England. Her helpful booklet, almost unknown in this country, has now been succeeded by a larger publication in the American book market, including among other valuable material a history of the entire movement. Dr. Bahlsen's active participation in this long pedagogical struggle from its inception renders him especially fit for his task; to the American public he is known through his work at Teachers College, Columbia University, as well as in the Educational Department of the St. Louis Exposition.

We most earnestly recommend the serious study of his book to every teacher of foreign languages in this country, to the advocate of the so-called "natural method" no less than to him who sees in grammar the chief field of usefulness. All can learn from this terse and fair exposition. In comprehensible form it lays before us the systematic efforts of German schoolmen who now for well-nigh a generation have faithfully labored in theory and practice to bring forward their branch of the school curriculum.

Of the seven chapters of Dr. Bahlsen's book but two will be mentioned here, the first as it treats of the important subject of phonetics. He rigidly insists upon a phonetic basis for all foreign-language instruction. Now, it seems that we are nowhere less prepared to meet the demands of progressive teaching than in this subject, inasmuch as to the majority of our high-school teachers phonetics is still a *terra incognita*. The evil is to be remedied primarily by the universities and other institutions furnishing our teaching staff; for, however much opinion may vary as to the amount of phonetics that should be introduced into the classroom, every thoughtful person must admit that the teacher should be familiar with the manner in which the sounds of the languages handled by him are produced. Until such time as a chair for phonetics be established at all higher institutions of learning, the teacher is necessarily thrown upon his own resources; for in these days of applied science ignorance of phonetics on the part of the instructor becomes a crime toward the pupil.

Attention is called secondly to the chapter entitled "A Reading Course in German for Secondary Schools" for the following three reasons: We agree with the "Reform" that the determining factor in the selection of German reading should be to acquaint the student with Germany, with the nature and customs of the German people, and with Germany's culture and intellectual life. Dr. Bahlsen is further

[1] Hermannn Breymann, *Die neusprachliche Reform-Literatur von 1876—1893* (Vol I), *von 1894—1899* (Vol. II). Leipzig: A. Deichert, 1895, 1900.

[2] Wilhelm Viëtor, *Die Neueren Sprachen.* Marburg in Hessen: N. G. Elwert.

[3] Mary Brebner, M.A., *The Method of Teaching Modern Languages in Germany.* 3 ed. London: C. J. Clay & Sons, 1904.

right in believing that such an acquaintance can never be obtained by the prevailing custom of studying separate texts, but by the creation of a first-class German Anthology (such as described on pp. 90 ff[1]). Finally, we feel sure that all teachers longing for a wholesome change from the love stories now so much used in the classroom will welcome the rich suggestions here offered for future editors. Occasional slips. as the recommendation of Schiller's *History of the Thirty Years' War* for high school reading, are doubtless due to the shortness of Dr. Bahlsen's stay among us, and can easily be rectified.

PAUL O. KERN.

UNIVERSITY OF CHICAGO.

Experimental Psychology, Instructor's Manual, Quantitative Experiments. By EDWARD BRADFORD TITCHENER. New York: The Macmillan Co., 1905. Pp. clxxi+453.

The present volume completes the series of manuals for students and teachers of experimental psychology which Professor Titchener has been at work upon for several years. The author has accomplished a most arduous and difficult task with such distinguished success as to put the coming generation of psychologists under lasting obligation to him. The standard of excellence which he has set himself has been of the highest, and his services to psychological scholarship will be recognized for many years to come. This is no common fate for a maker of textbooks.

The publication of these volumes marks a transition in the methods of teaching and studying psychology which is little less than revolutionary. Formerly all instruction upon this subject was conducted by lectures or by the use of a text which the student was expected to absorb more or less uncritically. Now the student is inspired to find out all he can for himself, and by the aid of such books as these of Professor Titchener's he is put in possession of all the most elaborate and exact methods of ascertaining psychological facts. Even where regular texts are employed, as is still under many conditions most advantageous, the emphasis is laid quite as much upon the method of getting the information and its consequent reliability as upon the facts learned.

In this transition to a more consciously empirical point of view nothing is more striking than the development of the so-called psychophysical methods for the quantitative evaluation of psychological processes. The history of all the natural sciences discloses a period in which merely qualitative analysis was attempted, after that a period of tentative and often abortive effort at explanatory classification, and finally a period during which mathematical principles were successfully applied. The sciences have become exact just in proportion to the extent to which this quantified treatment has been found applicable. The biological sciences have naturally proved more obdurate to this mode of procedure than the physico-chemical group, but many of their departments have at last yielded to patient and ingenious endeavor, and psychology itself has finally been found vulnerable. Professor Titchener's manuals constitute incidentally a luminous history of these struggles to reduce to quantified formulæ the mental relations with which the psychologist deals. The layman will hardly find these manuals practicable reading for moments of relaxation, but for those who would master the issues at stake they have no competitors, much less rivals.

JAMES R. ANGELL.

[1] See also the reviewer's article "Realien im neusprachlichen Unterricht," *Paedagogische Monatshefte*, Milwaukee, Wis., Jahrgang VI, Heft 7–8, p. 238.

NOTES

NATIONAL EDUCATIONAL ASSOCIATION

The Executive Committee of the NATIONAL EDUCATIONAL ASSOCIATION has selected San Francisco, Cal., as the place of meeting for the FORTY-FIFTH ANNUAL CONVOCATION, July 9–13, 1906. The teachers and citizens of San Francisco are making extensive plans for the entertainment of the Association, and a General Convention Committee has been organized, on which is found a large number of the prominent active members in California, the governor of the state, the mayor of San Francisco, and many other representative citizens of the city and state. From this number a Local Executive Committee of eleven has been appointed, each member of which is chairman of a subcommittee having in charge specific interests, as follows:

Rufus P. Jennings, Chairman, 25 New Montgomery St., San Francisco.

Alfred Roncovieri, president of the San Francisco Board of Education; chairman of Committee on Reception.

Thomas J. Kirk, state superintendent of public instruction, Sacramento, Cal.; chairman of Committee on Excursions and Transportation.

P. H. McCarthy, president of San Francisco Building Trades Council; chairman of Committee on Halls.

Fred J. Koster, president of California Barrel Co.; chairman of Committee on Police.

William H. Langdon, superintendent of San Francisco Public Schools; chairman of Committee on Program.

W. L. Crowall, president of W. L. Crowall Co.; chairman of Committee on Hotels and Accommodations.

James A. Barr, president of California Teachers' Association, Stockton, Cal.; chairman of Committee on Membership.

R. B. Hale, treasurer of Hale Brothers; chairman of Committee on Publicity and Printing.

Marcus L. Gerstle, of Thomas Gerstle & Frick; chairman of Committee on Finance.

Dr. George K. Frink, president of Thomas Downing Co.; chairman of Committee on Decorations.

A. H. MacDonald, principal of Lincoln Evening School; chairman of Committee on Registration and Information.

Correspondence on local San Francisco matters should be addressed to RUFUS P. JENNINGS, chairman of the Local Committee of the N. E. A., 25 New Montgomery Street, San Francisco, Cal.; on all other matters, to IRWIN SHEPARD, General Secretary of the N. E. A., Winona, Minn.

LOUISVILLE MEETING, PRELIMINARY PROGRAM

TUESDAY, FEBRUARY 27

9:30 a. m.

1. Address of Welcome.
2. Topic: "Moral and Religious Education in the Public Schools."
   a) Means Afforded by the Public School for Moral and Religious Training—T. A. Mott, superintendent of schools, Richmond, Ind.

THE SCHOOL REVIEW

A JOURNAL OF SECONDARY EDUCATION

VOLUME XIV
NUMBER 3

MARCH, 1906

WHOLE
NUMBER 133

ENGLISH IN THE SECONDARY SCHOOLS [1]

FREDERICK H. SYKES
Teachers College, Columbia University

English develops not by adding subject unto subject. It develops in accordance with the developing powers of the pupil. It is an entity, an organic subject. Its vitality must be guarded, like the human spirit itself; for English is our very spirit, our very faculty. Our language is the very means of our thinking at all, the only communication between life and life; and our literature is the fountain of our ideas and our ideals. English is the very center and essential substance of education at the outset of high-school life; and throughout the high school, it never, unless with exceptional pupils, loses that pre-eminent position.

The particular form and method that English instruction shall assume is the most important problem before the secondary school today. We are still in a transition period, seeking ways to order and formulate our work. As a school study, English is scarcely older than the school days of anyone here. We could mark off each of the few decades in English study, with its respective dominant phase of instruction—each one tried, enthroned, and dethroned. What makes us believe that we are approaching a final statement of English is that we have come in these late years to a fresh view-point. We have come to consider the central fact of the whole question—the child himself. Earlier teachers taught subjects—grammar, correct English,

[1] Read at the Conference of the Secondary Schools of Vermont with the University of Vermont, January 11-12, 1906.